The Cavendish Lecture

ON

ACUTE CARDIAC FAILURE.

Delivered before the West London Medico-Chirurgical Society at the Town Hall, Hammersmith, on June 21st, 1901,

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GENTLEMEN,—"Acute heart failure" is, I admit, a misleading phrase, but it is scarcely necessary to explain to an assembly such as this that it implies, not any separate disease of the organ, but the culmination in temporary or permanent arrest of the cardiac function of a variety of conditions damaging to tension and exhaustive to nerve power or muscular energy. We cannot perceive aright the heart and its mechanism or appreciate duly its modes of failure unless we bear steadily in mind the fact that it is but a part, differentiated for special reasons, of a complete cardio-vascular tubal system containing the blood. The tubes are not passive tubes sluiced by a central force pump; on the arterial side the powerful rhythmic pulsations of the heart are so modified and restrained by the elastic muscular action of the vessels as to ensure a safe and adequate stream of blood throughout the body; whilst on the venous side the position of valves, the action of adjacent and often ensheathing muscles, the impetus of lymph and chyliferous tributary currents, and the constant but rhythmically increased thoracic aspiration help to maintain the blood movement.

I need only hint at the large influence of the nervous system which has in course of evolution become so specialised with regard to the heart and vessels. The cerebro-spinal nerves, the sympathetic system, and a department of the nervous system—the vaso-motor nerves—in touch with the preceding and yet under guidance from a separate centre, all take part in controlling the heart's doings and in regulating the blood-supply to each organ according to its functional requirements which vary from time to time. Finally, there is held in the tightening and relaxing grasp of this complex tubal apparatus the blood itself, a living tissue whose constant variations, both chemical and physical, in health and disease, affect the facility of the capillary flow and influence the tonicity and nutrition of the circulatory apparatus. Can we look into this complex mechanism, which I have but enumerated, in which physical, chemical, and vital agencies are so intimately mingled, without a feeling of wonder that it should hold good unceasingly to the allotted term of life, and that so few lives should be brought to a premature close through heart failure? A chapter on compensatory adaptations has yet to be added to our text-books on medicine for our better understanding of many such problems.

With such an infinite number of contributory factors acute cardiac failure cannot be a simple question, and if I, bound by the stern limits of time and the more compelling limitations of my ability, approach it from the more concrete, clinical, and practical side, it is from no want of appreciation of the manifold intricacies of the subject, and it is with a very humble sense of our indebtedness as practical men to those whose patient labours in the laboratory have given us so large an insight to help us to solve the problems that come before us in our daily work.

A most obvious cause of heart failure is direct injury—excluding, of course, external wounds—as, for instance, the very rare occurrence in which a healthy man during some sudden effort ruptures one of his aortic cusps. The whole cardiac mechanism is suddenly put out of gear, severe præcordial pain, disorderly action, and faintness ensue, to be followed by other signs of perturbed circulation. In the only case of this injury that I personally remember seeing almost immediately there was smart hæmoptysis, no doubt from the over-distended left ventricle obstructing the return from the lungs. Under the only treatment possible—very complete rest—the heart, at first surprised and only very imperfectly able to deal with the altered mechanism consequent upon the spoiled condition of its main valve, gradually steadied down. The left ventricle enlarged and increased in power and the small, rapid, and irregular pulse was gradually altered to that having the characteristic features of aortic regurgitation. This alteration of pulse marked the adaptation of the heart to its new conditions in a manner precisely similar to that which we observe in a case of aortic regurgitant disease in which, dilatation of heart and mitral inadequacy having arisen, the irregular mitral characters of the pulse gradually return under rest and treatment to those proper and normal to a well-compensated aortic regurgitation.

The displacement of a clot from a systemic vein is a common cause of acute anginal heart failure and is attended with urgent dyspnœa, an irregular, fluttering pulse, and very variable heart signs. The condition is indeed one of *asphyxia* of the heart and it either terminates rapidly in death or the clot is further dislodged and propelled into the lung, when the cardiac symptoms quiet down and those of another order commence, with hæmoptysis significant of pulmonary infarction. Here, again, we can only recognise what is happening and relieve suffering and ensure quietude by subcutaneous morphia and like remedies. These cases are, however, by no means necessarily fatal; if the clot passes on to the lungs recovery ensues in a fair proportion and the prognosis in each case must be considered on its separate merits.

Next to such injuries to the heart, of which I have given a right-sided and left-sided example, we must glance at cardiac failure from over-taxation. There are two factors always at work, although in different proportions in different cases, in producing cardiac failure from great or prolonged exertion—viz., direct fatigue of the nervo-muscular tissue of the heart and a poisoning of the blood of auto-metabolic source. Speaking of young people and healthy hearts acute cardiac distress is, of course, very common in these days of athletic competitions, strenuous school exercises, hard bicycling, &c. It is surprising that actual heart failure so rarely occurs; but few of us have an opportunity of witnessing such an attack. Fatal cases are rare, but have been recorded. For the most part we can only observe the after-effects of incomplete heart failure.

Amongst the concomitants of heart distress or failure during violent exercise, as running, vomiting is one of the most common. A boy will tell you that at the end of a long race which over-taxed him he cast himself on the ground and vomited. Dr. Clement Dukes, speaking of boys overdone from running from various causes, says[1]: "Sometimes the boy will finish merely fagged or he will faint or vomit by the way and will require to lie down on the road, or he will complete his run, but vomit all the evening after reaching home; or, again, if still more overdone he may become absolutely insensible while running and this state may last for hours; or he may die whilst in the act of running." Amongst the after-effects one of the most constant is anæmia, and both of these phenomena, vomiting and anæmia, may be regarded as bearing witness to a changed condition of the blood consequent upon the accumulation of products of metabolism, which is now recognised as taking a not unimportant part in the mechanism of heart failure. I would remind you that gastro-intestinal attacks, vomiting, or diarrhœa are not uncommon occurrences in those who, habitually leading a sedentary life, suddenly take to exhausting exercise. There are other more certain proofs of altered blood in those who have died from excessive exercise and in hunted animals, of which increased liquidness of the blood, absence of post-mortem clotting, and darkened colour are amongst the more obvious. I am not aware of any observations that have been made upon the blood in healthy people after a period of training followed by severe and exhausting effort, and, still more interesting, after prolonged exertion in those who are not in training. We are all of us familiar with cases of neurasthenia and anæmia distinctly traceable to some severe exertion in a person with no previous training.

In estimating the consequences of over-taxation of the heart from violent or prolonged exertion in young people especially there are one or two points of practical moment to

[1] Health at School, 1894, p. 331.

be observed. A glance at Beneke's tables[2] will show that the heart of the child is somewhat precociously developed, and this cardiac precocity is in accordance with what I believe to be a fact which I have long observed and pointed out in clinical teaching—viz., that the heart of the child, say, between six and 12 years is relatively hypertrophied—i.e., the apex beat is somewhat to the left of the normal and the impulse relatively strong. This is the case especially with boys, and in my experience holds good with a considerable proportion of them. I have regarded it as due to the ceaseless activity of children and to a developmental precedence of heart to chest and lung capacity. The practical point is that I do not regard a slight extension of the apex beat within the nipple line, unaccompanied by confirmatory signs, as necessarily a morbid condition in a child. I look for the evidence of cardiac overstrain rather in an extension of the upper margin of dulness in the mid-sterno nipple line, an unduly perceptible impulse at the ensiform base, and in a hesitating action of the heart—i.e., an irregularity in rhythm and force. These signs in association with languor, anæmia, breathlessness on exertion, and sometimes a sharp pain at the heart which I have heard described as a "beastly pain catching the wind," caused by a slight effort are sufficient for diagnosis. You may get others, such as murmurs; you often do get a hæmic murmur over the pulmonary area, but murmurs are by no means essential or to be expected.

A foreknowledge of the contributory and direct causes of these preventable occurrences is, of course, of much importance, and, thanks very greatly to the labours of Dr. Clement Dukes and to the careful supervision of the able medical officers attached to most of our public schools of recent years and to the care with which boys are watched, weighed, measured, and their sports organised at most of our preparatory schools, all such risks are reduced to a minimum, whilst, on the other hand, the moral and physical advantages of athletics are fully maintained. A routine examination and registration of the health of every boy on entering school life would, however, be an advantage, supplemented, perhaps, by some brief form of health report from the home medical adviser.

A cardinal point—and the only one I shall touch upon—to be borne in mind with regard to young boys and girls is their special aptitude for short spells of active exercise but their complete unfitness for prolonged fatiguing monotonous exertion. This is almost the reverse condition applicable to older people, and it is one often forgotten, not, perhaps, so much at schools as at home. Athletic fathers, robust elder brothers, proud of the sporting alertness and eagerness of young boys, will often keep them out on long bicycle, golf, or shooting expeditions, and may thus cause grave damage to the young and rapidly-developing heart. There is certainly a lack of supervision of young men training for athletics at the universities, although it is true that they come already seasoned and tested from the public schools. There ought to be some medical "don" to supervise university athletics who should, however, be himself thoroughly in sympathy with the athletic spirit.

The treatment of acute failure of heart from overstrain involves a period of a few weeks' complete rest and often many months of careful supervision. Young people make a rapid and generally a complete recovery, provided no actual lesion has been produced. The younger they are the more ready and complete the recovery. In youths and young men a degree of irritability of heart is often to be observed for many months, even for some years, the patient suffering from attacks of palpitation and cardiac pain on slight fatigue or exertion and often at night. Quiet exercise must be resumed after a time and it is, in my opinion, better to allow interesting exercises within measure, such as croquet, level cycling, golf, and easy tennis, rather than more formal courses of training. But each case must be considered on its merits. In some cases of cardiac overstrain in young people it will be found that a feeble lung capacity has led indirectly by imperfect pulmonary circulation to the heart distress. In such cases well-ordered respiratory exercises by developing the lungs will facilitate the work of the right heart and help the general circulation by increasing thoracic aspiration. Well-planned sea voyages or sailing trips from the coast are peculiarly advisable for adults, provided strict injunctions against smoking and all strong alcoholic drinks are given.

Another form of fatigue heart failure is that frequently met with in acute disease. It is too long a story for me to go into now. I have dealt with it with some minuteness elsewhere,[3] as met with under one of the most common of circumstances—viz., in acute pneumonia. It is met with also in enteric fever, in acute bronchitis in old people, during a severe asthma paroxysm, and in other conditions, such as functional tachycardia. The heart failure in these conditions may come about with a gradual quickening day by day of the pulse until it becomes fluttering, confused, running, representing little more than peristaltic movements of the heart. In other cases—and this more commonly in plethoric, fleshy, larged-framed people with a pulse at first not unduly quick, with considerable tension and accentuation of the second sound—the failure occurs quite suddenly, attended with rapid breathing, pallor, and cyanosis, sweating, collecting mucous rattles in the chest, and almost imperceptible running pulse. Under strong stimulation and the subcutaneous use of strychnine the patient may rally and all the conditions improve, but relapse often, and in elderly people almost always, takes place. An attack such as I speak of occurring in an old person with bronchitis or pneumonia is almost of fatal augury; the senile heart cannot recover the fatigue, and hence when the pulse mounts up to 120 in old people recovery is rare, unless the rapidity be attributable to functional disturbance from some temporary cause. With a sound heart in young persons no condition is too desperate for possible recovery.

Now to discuss the treatment of heart failure under these varying conditions would be to discuss the whole management of the illnesses in question. There are a few factors, however, in special concern with heart failure in acute disease—viz., (1) maloxygenated and otherwise contaminated blood-supply to heart muscle and nerve; (2) excessive weight of blood burdening the heart; (3) exhausted innervation from sleeplessness and physical cardiac fatigue; (4) positive obstruction to the flow of blood through the lungs; and (5) changes in the texture of the heart muscle incidental to the disease and especially to the pyrexia. Now the first two indications are undoubtedly met by depleting the blood volume from the venous side by attention to secretions, the occasional use of mercurials, careful limitation of the food taken in place of the over-feeding often to be observed, and in some cases a small blood-letting. The timely employment of oxygen inhalations at intervals through the day is a remedy of great value which ensures an improvement in the aeration of the blood sent to the left ventricle and so direct to the coronary vessels. It is by no means necessary to employ oxygen inhalations in the majority of cases of pneumonia, of which disease I am now especially speaking, but in all severe cases the cylinder should be at hand to anticipate the threatened heart failure. 3 and 4. Exhausted innervation and pulmonary obstruction are met with in pneumonia, advanced typhoid fever, and asthenia especially. Strychnia is the most powerful cardiac tonic we know and subcutaneously used is the best remedy for heart failure. In these cases, however, a frequent concomitant symptom is ballooning of the abdomen, and it is both dangerous and inefficient for the purpose required to give strychnia in such cases by the stomach. In asthma, pneumonia, and in enteric fever it is often possible in combination with the free use of oxygen and the occasional injection of strychnia to give a sufficient subcutaneous dose of morphia to procure some much-needed sleep. When the heart threatens to fail in asthma the paroxysm must be thus shortened. In bronchitis, on the other hand, under no circumstances can morphia be so given. I have often observed cardiac exhaustion threatened in asthma through the want of small administrations of concentrated and assimilable food essences at intervals to support the patient. Alcoholic stimulants are, of course, often necessary, the dose being adapted to suit the individual case. 5. These changes incidental chiefly to pyrexia in the heart muscle as a cause of failure are mostly to be considered in the prolonged fevers and will be best warded off by a judicious mitigation of the pyrexia. I would only observe on this head that in cases where there are labouring action of the heart and a tendency to cyanosis and stagnation of surface blood I have seen much better results from hot-water than from cold-water sponging or cold applications. The surface circulation is facilitated, heat is rapidly lost, and the skin functions encouraged, all tending to lighten the burden of the heart. In the after-treatment of pyrexial diseases in which there has been prolonged rapidity

[2] Die Alt redisposition, 1879, p. 94.

[3] Lumleian Lectures: On Treatment in Diseases and Disorders of the Heart, Lecture III.

of heart or any sign of heart failure a chief regard has to be paid to restoration from cardiac fatigue. Thus our level sea and country resorts are preferable to hilly places and exercise must only gradually and tentatively be resumed.

I can only glance at specific poison failure of heart in diphtheria, phosphorus poisoning, malignant anæmia, and the like, in which the cardiac nerves are directly poisoned, and in most cases a rapid fatty change in the heart fibres ensues. These cases are mostly fatal with the exception of the influenzal cardiac affections, amongst which symptoms of slowing and increased rapidity of heart are met with, also some most intense forms of angina, usually vaso-motory, and attacks of dangerous syncope may occur, yet the prognosis is even in severe cases, so far as my experience goes, as a rule, favourable.

Of anginal heart failure I have no time to speak at length. I would only urge that from a practical and treatment, as well as from a scientific, point of view we must regard angina pectoris as in the largest class of cases a functional disease—a cardio-vascular neurosis. In many cases it is dependent upon disorderly action of the vaso-motor nerves and is associated with a sound heart (angina pectoris vaso-motoris). In many others we have a similar mechanism but with, in the background, an unsound heart—aortic regurgitation, aneurysm, senile fibro-fatty hypertrophy, coronary disease, and the like (angina pectoris gravior or secondary cardiac angina). In numerically a comparatively small although very important group the anginal failure is usually the consequence of cardiac degeneration secondary to coronary disease, sometimes to coronary thrombosis or syphilitic disease (syncopal angina or primary cardiac angina). It is obvious that all the causes of excitement, direct and reflected, of the sympathetic and vaso-motor nerves must be looked into in dealing with the larger proportion of these cases, whilst, on the other hand, any special form of cardiac lesion must be appropriately dealt with. In accordance with what has been above stated the immediate remedies for the cardiac attacks are of the anti-spasmodic and sedative class, amyl, trinitrine, opium, directed against the arterial spasm which is so important a factor in the attack.

In cases of coronary lesion the employment of regulated exercises, combined resistance, and respiratory exercises, and, in old people especially, the regulated use of oxygen inhalation, will help to maintain cardiac nutrition for at least a time longer. Whilst gentle exercise calculated to raise the blood-pressure within the coronary circuit is thus to be advised caution is necessary that no cardiac fatigue be induced. The periods of exercise should be of short duration. As in old people with atheromatous vessels cramp in the legs is readily induced by any fatiguing exercise in consequence of the imperfect nutritional change allowed by the narrowed arteries, so we may similarly get cramp in the heart muscle which is very apt to prove fatal. This was pointed out by Allan Burns nearly a century ago and further dwelt upon by Sir Benjamin Brodie. It is to be noted also that the cramp of fatigued muscles does not necessarily come on at once, but frequently is postponed until the night. Cramp in the leg is a mere painful incident, cramp in the heart muscle is apt to prove fatal.

There are two conditions leading up to heart failure which I have not touched upon and yet which from the remedial point of view are of immense importance, but they have been fully handled by my colleague Dr. Mitchell Bruce in his recent Lettsomian Lectures. One is typified in the middle-aged, plethoric man who, working hard, lives too well and takes little exercise. This man gradually acquires a fatigued and over-burdened heart, over-weighted with the heavy volume of blood which it has to propel. He may get a spring or summer cleansing once a year at Homburg, Harrogate, or Carlsbad, but on the whole he drifts along often into irremediable disease of heart or kidneys or both. His first introduction to the physician is often after an attack of breathlessness and cardiac excitement or failure occurring on some unwonted exertion, after which he remains perceptibly short-breathed. His cardiac area is extended, partly from a slight yielding but mainly from præcordial and interstitial fat. The first sound is weakened, often to extinction, and the second sound is labouring; there may be slight albumin or a little sugar in the urine. Under a depletory treatment, a restricted diet, with a limitation of fluids taken chiefly between meals, a great curtailment of alcohol and smoking, and well-arranged exercise, with insistance on deep, full inspirations from time to time whilst walking in the fresh air, such a man will be restored to health and practically rescued from some early catastrophe in the form of heart failure in acute illness or from drifting into chronic cardio-vascular disease. A few weeks' change away whilst getting inured to the treatment is of great value and such cases will derive especial benefit from Nauheim or modified Oertel treatment.

The other class of cases I would refer to in association with two causative factors—viz., nicotine and epilepsy. I may bring my remarks to a point and a conclusion by a brief sketch of a case in illustration. A captain in an infantry regiment was invalided home from South Africa on account of attacks of heart failure. He was a married man, 37 years of age, had never had syphilis, but was an inveterate cigarette smoker. In July, 1900, whilst mounting a hill he felt distressed and on return to camp fainted, and after this he was unable to exert himself without some distress. In September, having escorted some prisoners from Durban to Cape Town, without sickness or fatigue or any hardship, he on arrival was about to get ready for dinner and in the act of taking a glass of wine bitters when he suddenly fell down unconscious and pulseless so that a medical man who saw him immediately thought him dead. He remembered nothing until he woke at 2 A.M. feeling very faint and ill. There was no preceding sense of faintness, no pain, and no convulsion. On a later occasion whilst feeling very well he suddenly fell unconscious for a quarter of an hour. He has had one similar attack since his return home in November. He was subjected to a course of Nauheim treatment without benefit. His complaint was, besides these attacks, of almost daily attacks of cardiac pain, especially induced by any exertion. Dr. Walker, under whose care he came subsequently to the Nauheim course, by rigorously restricting the tobacco and regulating his diet and stimulants, materially relieved these symptoms, and when I saw the patient with Dr. Walker in April the cardiac dimensions, position, and sounds were normal and the pulse, although feeble and rather quick, presented no other special feature. On inquiry into this gentleman's family history nothing cardiac was elicited, but it was ascertained that his second son was the subject of very frequent and severe attacks of petit mal and a brother was a deaf mute. This case was primarily no doubt one of anginal heart failure in association with excess in nicotine, and as such belonged to a class of frequent occurrence, but in the case just related the instantaneous attacks of unconsciousness were suggestive of at least an associated neurosis of an epileptic character. I have met with one very strikingly similar case in a younger man, also an excessive smoker, and I have a less full recollection of another case in connexion with excess in cocaine.

I have from time to time been consulted about a lady who has long been the subject of night attacks of an epileptic character and who has recently developed marked and rather severe attacks of angina with heart failure of an alarming degree, many of which attacks usher in a mild epileptic seizure. In her case the pulse of late years has become extremely slow and she has presented some symptoms of myxœdema.

Cases of cardiac hesitation with pulse of uneven rhythm not amounting to intermittency and presenting occasional attacks of fainting are not very infrequent amongst children, young boys especially, between six years of age and puberty. They are easily tired and are generally anæmic. It is quite exceptional to find them addicted to any secret vice. There is nothing abnormal beyond altered rhythm and vacillating force to be found in the heart. The distinction between this form of heart failure and petit mal is often difficult and I am strongly inclined to regard the two conditions as allied. Removal from all mental pressure, an outdoor life, and arsenical tonics generally result in gradual recovery.

I have endeavoured in this address rather to suggest lines of thought than methods of treatment, feeling that you are as competent as I to give a practical therapeutic interpretation to whatever of my suggestions may meet with your acceptance.

SOUTH-WEST LONDON MEDICAL SOCIETY.—The annual dinner of this society took place on June 20th at the Café Monico. Nearly 40 members and friends sat down to dinner, Dr. M. G. Biggs, the President, being in the chair. Among the guests of the society were Mr. Bryant, Dr. Habershon, Mr. Lockwood, Dr. James Taylor, Dr. Herbert Hawkins, and Dr. Morgan Dockrell. Some excellent music, provided by the generosity of Mr. T. S. Howell, a former President of the society, brought a very pleasant evening to a close.

Three Lectures
ON
THE PRACTICAL POINTS IN THE TREATMENT OF THREATENED ASPHYXIA.

Delivered at the Medical Graduates' College and Polyclinic, Chenies-street, W.C.,

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LECTURE II.[1]

GENTLEMEN,—In my last lecture I demonstrated to you the nature of the experiments on which the Marshall Hall and Silvester methods for the resuscitation of the apparently drowned were based, and I told you that the committee of the Royal Medical and Chirurgical Society had confirmed in every detail the results of our experiments, and that the committee, in addition, demonstrated that in drowned animals, not only were the air passages choked with fluid more or less bloody, but that both lungs were highly gorged with blood so that they were heavy, dark-coloured, pitted on pressure, and on being cut exuded an abundance of blood tinged fluid with many air-bubbles in it. The committee up to this point made a distinct advance: it settled an important principle of pathology in a clear and definite manner. Before this time, although Sir John Simon and other pathologists had asserted the presence of water in the lungs in cases of drowning, the opinion of Sir Benjamin Brodie prevailed both in the profession and at the Royal Humane Society, to which the public always turn for advice in this matter. Sir Benjamin Brodie[2] says: "That the admission of water into the lungs is prevented by a spasm of the muscles of the glottis cannot, however, be doubted, since we are unable to account for the exclusion of it in any other manner; and a multitude of circumstances prove that these muscles form a sphincter to the windpipe as perfect in its functions as any sphincter in the body." The committee showed by their experiments, on the contrary, that Sir Benjamin Brodie's theory of the non-existence of water in the lungs was incorrect, for they proved that water did exist, at least in animals. Now, instead of showing how this water, of which they admit the lungs to be full, could be first removed and then replaced, *pari passu*, by the introduction of pure air, the committee advised the adoption of a method which would introduce the largest amount of air into *empty* lungs. I would ask how it was to be introduced into lungs shown to be already full of water. The only effect of forcibly driving in air, which the Silvester method certainly does, would be to drive the water forcibly forward into the minute bronchial tubes and into the air cells, giving rise to a spongy or doughy feeling instead of the natural light elastic crepitation of healthy lung-tissue. Moreover, the water becomes inspissated with mucus, and frothy, by mingling with the air remaining in the lung—an exaggerated condition of what I have elsewhere shown produces in apoplexy "mucous stertor."

It must have surprised the committee to have found their results, although confined to animals, so entirely opposed to those of Sir Benjamin Brodie, and caused them to wonder how such differences could have arisen. It occurs to me that Sir Benjamin Brodie and others at that time must have drawn their conclusions from the fact that at times in drowning no water was found in the trachea and larger air-tubes. This, however, could not be so surprising when we reflect how easily water will make its way out of the trachea and large tubes during the many and irregular movements to which the body is subjected whilst being removed from the water to a suitable place for treatment, and further when we reflect how rapidly water evaporates on exposure to the air. At all events, it is now quite certain that the previous observers were in error. In 1862 I had a case of drowning and observed it very carefully during the whole course of its treatment. I made it, in fact, the subject of an experiment and I found that for three-quarters of an hour a little fine white foam was expelled from the mouth or nostrils at each pronation of the body. A second case soon followed and my observation of it gave precisely similar results. I then critically examined the many cases of drowning reported by Professor Casper and in nearly all of them was to be found most positive evidence that the lungs of the apparently drowned were gorged with water. He says[3]: "In the recent bodies of those who have been suffocated by drowning we find, besides the cinnabar-red, vascular injection of the tracheal mucous membrane, sometimes only a few isolated, white, but very distinct, small, pearl-like bubbles; sometimes a much greater quantity of froth, which is generally white, and more rarely bloody, and sometimes the whole tracheal canal is completely filled with this finely vesicular white foam. This extends into the bronchi, or, rather, extends out from them and their ramifications, as is distinctly evinced by exerting strong pressure on the as yet untouched lungs, when this froth will be seen to ascend into the opened trachea, even in those cases in which little or none of it had been originally found." ..... "I have found," he says, "this appearance in the trachea [in those entirely submerged from the first], precisely the same as in those other cases in which a repeated emergence above the surface of the water, though not positively known, might yet have been supposed to have taken place. At all events, since this froth is the product of the mixture of the inhaled fluid, in which the drowning has occurred, of the natural mucus of the passages, or even of blood from some ruptured vessel with the air contained in the lungs and trachea, and caused by the final forcible respiratory movements, it must be regarded as an indubitable sign of vital reaction—that is, that life must be regarded as having existed at the period of its formation." The lungs completely distend the chest, "they appear to be inflated like a balloon, and are not like ordinary healthy lungs, tolerably firm and crepitating, but feel exactly like a sponge. A similar condition is not found so constantly after any other kind of death, excepting only the most acute œdema of the lungs, which, however, is not present in this case, and occasionally after suffocation in irrespirable gases. The distension of the lungs is in part an actual hyperæria in consequence of the most violent inspiratory acts carried on at the momentary emergencies of the head of the drowning person above the surface of the water, but partly and chiefly a consequence of the inhalation of the fluid, in which drowning occurred, into the lungs, as has been indubitably proved by experimenting on animals with coloured fluids and by my own experience in regard to specific fluids. When the lungs are incised there is a copious outflow of sero-sanguinolent froth. The fact, proved by experiment beyond the possibility of a doubt, that the increased volume of the lungs does not exclusively depend upon mere hyperæria explains why this condition of the lungs is found even in those cases of drowning where death has been caused, not by asphyxia, but by neuro-paralysis, and this adds very much to the value of this most important appearance."

Such was the experience of Professor Casper and, it may safely be assumed, of the profession in Germany generally. Such, too, was the experience of the French School, as more recently confirmed at the Morgue by M. Bergeron and M. Montano. Dr. Taylor in his work on Jurisprudence, in quoting them, says: "The existence of a mucous froth in the fauces, larynx, and bronchi is, according to MM. Bergeron and Montano, the only constant sign of death by submersion, whether syncope or asphyxia preceded death." Mr. Blackett, the police surgeon of Hyde Park, tells me that in all cases of drowning in the Serpentine frothy fluid is found in the lungs. I attach much importance to the work of scientific observers who have devoted themselves to the study of forensic medicine, for they always work with the consciousness of great responsibility and of their statements being subjected to stringent criticism and cross-examination.

We have, then, arrived at this position: 1. It has been demonstrated that water always is present in animals that have been drowned. 2. I have adduced living cases and Professor Casper and other eminent pathological experts have shown in the dead that the same conditions obtain in man under similar circumstances. 3. I and others have observed and recorded cases in man in which frothy water

[1] Lecture I. was published in THE LANCET of June 22nd, 1901, p. 1743.
[2] Brodie's Pathology, p. 88.
[3] Casper's Forensic Medicine, vol. ii., p. 238 et seq., New Sydenham Society's edition.

continued to ooze away from the lungs for a long period during the application of the Marshall Hall method.

In 1861 a woman who had been taken out of the Serpentine and treated by the hot bath at the receiving house was taken to St. George's Hospital about one hour afterwards. Mr. Jones, the resident medical officer, stated that on admission "her breathing was fair, with loud rattling noise; her lips were livid, her pulse *very good*, her surface and extremities very cold; she was sensible and able to speak." Warmth and appropriate measures were employed but in half an hour Mr. Jones was suddenly summoned and only arrived to see her draw her last breath. The Marshall Hall method was immediately employed for half an hour without the slightest signs of recovery, but a large quantity of frothy fluid came from the mouth. At the post-mortem examination next day it was reported that "both lungs contained an immense quantity of frothy fluid, the bronchi were filled with fluid and injected." In this case the lungs were loaded with, and paralysed by, water. There cannot be a doubt that the Marshall Hall method would have unloaded the lungs, but I cannot doubt, also, that had she been placed on one side on her arrival at the hospital the upper lung would have cleared and acted quite sufficiently to sustain life. A lung containing frothy fluid does not clear immediately; the bells of foam must gradually coalesce and ooze slowly away, and to assist this nothing is more adapted than the Marshall Hall method.

Dr. T Trollope of St. Leonards was called to a man who had been taken out of the sea. The man could speak a little and had vomited a quantity of water, but he rapidly became worse; insensibility ensued, the breathing became slow and faint, and the pulse flickering. The Silvester method was being used and Dr. Trollope persisted in it for some minutes. "Meanwhile," Dr. Trollope reports, "his respiration had ceased, beyond a slight mucous rattle in the windpipe; his heart's action could not be felt; jaw clenched, and lips livid. ..... I then, finding these alarming symptoms supervening in spite of the persistence in Dr. Silvester's method, immediately had recourse to Dr. Marshall Hall's prone and postural or 'ready' method, and was gratified to find fluid escape from the mouth each time the body was laid on the chest, and respiration gradually set up, commencing with long-drawn respirations, or rather gaspings, at intervals. I persevered in the prone and postural movements for three-quarters of an hour, till respiration was thoroughly and satisfactorily established. The man then again vomited between a pint and a quart of water, and was afterwards able to swallow a few tablespoonfuls of tea, and went on satisfactorily." A most characteristic illustration of what must always obtain in such cases.

In March, 1862, I was called to a man who had been knocked into the sea by a heavy chain. On getting him ashore he was believed to be dead, but one of the men thought "they ought to get the water out of him," and so proceeded to roll him from side to side, and whilst this was being done a quantity of water was expelled from the mouth and they perceived some attempt at breathing. A few minutes after this I was on the spot and found the man apparently dying, making occasional and feeble attempts to breathe, with a very feeble and irregular pulse. He was lying on his side with his head upon a coat, and a quantity of froth tinged with blood was lying on the coat in the neighbourhood of his mouth. I observed that clear water and froth welled out of his mouth at the end of every inspiration. Active friction of the limbs, hot bottles, and hot bricks were carefully applied to the body, and ammonia to the nostrils. Nearly an hour elapsed before we thought it possible that he could live. He then began to moan, and in a short time a small quantity of brandy was swallowed and he slowly recovered.

In July, 1864 a man was capsized in a boat at sea. After being in the water for some time he was picked up and rowed ashore. On arrival he was cold and livid and was breathing with great labour. He was immediately turned on to his side by the coastguardsmen and a quantity of frothy fluid came from the mouth. He was taken to an inn, where he was kept on his side and where I saw him a quarter of an hour afterwards. He was then breathing with difficulty. A fine white froth, almost like milk was oozing from his mouth and nose; his face was very livid, and meaningless in expression; his breath was cold; the pulse could not be felt. There were a few moist râles in the left side of the chest, the side which was uppermost, but the breathing was tolerably free; the breathing on the side upon which he lay was very feeble and obscure, and moist râles were more abundant. He could not be roused. In half an hour he became a little restless, and then vomited a quantity of sea-water. The pulse could now be felt, but not counted; this gradually improved. Attempts at vomiting supervened, and there was occasionally a partial restoration to consciousness. After another attack of vomiting, the pupils, which had been widely dilated, became contracted, and he went off into a sound sleep. He passed a most trying night from restlessness and pain at the epigastrium, and the next day he was still livid but better and easier. The following day pleuro-pneumonia of the right side (that which was downwards) supervened. From this he slowly recovered.

The following extract from a letter from Mr. T. W. Colbeck of Dover is corroborative and worth relating: "Some years ago I had a case of drowning at the Sailors' Home in which I distinctly made out water to be present in the lungs, as there were loud mucous râles throughout both lungs. After long and persevering efforts with the Marshall Hall method I succeeded in resuscitating the man. During the whole period some water flowed from the mouth, much of it doubtless from the lungs, as it was very frothy. He had a severe attack of broncho-pneumonia subsequently and was very ill, but from this he also finally recovered."

On August 11th, 1871, I was summoned to a case of drowning. I found a young man, about 19 years of age, lying on his back on the beach and men engaged rubbing his limbs. The face was livid and there was froth about the mouth and nostrils, the eyes were open, the conjunctivæ were congested, and the pupils were dilated and fixed; there was no pulse, no respiration, or other sign of life. On percussion both sides of the chest were dull but less so in the subclavian regions. The patient was turned on to his face and a quantity of clear water and froth issued from the mouth and nostrils; he was then turned on to his side and the Marshall Hall method was continued steadily for three quarters of an hour; up to the last a little froth issued from the nostrils when pressure was applied to the spine in the prone position. From time to time I examined the chest, and found the upper (right) lung gradually clear until at last it gave forth quite a natural resonant sound on percussion, whereas the lower lung remained perfectly dull. After using the Marshall Hall method for 10 minutes, when I thought most of the water had come from the upper lung, I had the upper arm (for the patient was kept on one side, the left, the whole time) raised up over the head, in the manner described by Dr. Silvester; more air now appeared to enter the tubes, and froth was, on compression of the thorax when the body was pronated, expelled. I could hear râles in the chest during the artificial respiratory movements. The face became less livid, and this was the only apparent change which occurred during our efforts. The temperature of the body was sufficiently preserved by the heat of the sun. I had no galvanic apparatus at hand. On careful inquiry there is no doubt that the patient had been under water for 20 minutes, for he was bathing half a mile from the town, and this distance had to be traversed and a boat rowed to the spot before assistance could be afforded. He was found near the bottom face downwards, in a sort of stooping position, and rose readily to the surface when an arm was placed beneath the body.

A case almost identical with the foregoing was under the joint care of Dr. W. J. Tyson and myself. The young man, aged 20 years, had been in the sea submerged for about the same time, the appearances were similar, a similar treatment was adopted, similar changes took place in the lungs during the treatment and the froth continued to ooze from the mouth about the same length of time. Both cases were carefully observed and although unsuccessful as regards recovery they may fairly be looked upon as experimental and scientifically accurate.

The following case has been kindly supplied to me by Dr. Tyson. A man, aged about 40 years, was brought into the Folkestone Hospital. He had fallen into the harbour and was believed to have been in the water for from 10 to 15 minutes. On admission he was very cold and in a collapsed condition. There were feeble attempts at respiration. The Marshall Hall method was immediately applied and continued for 30 minutes. During its employment the man was always kept on one side and was turned from face to side from 16 to 20 times in the minute. Sea water of a frothy character escaped from the mouth during each expiratory action for 20 minutes or longer. The man was manifestly better for the treatment adopted, but it was not

considered safe to discontinue the artificial respiration for at least half an hour. The man eventually made a good recovery.

These examples, with many others that I could relate, show conclusively that in cases of drowning in man water does exist in the lungs; that the water only very gradually, and after a long time, is effectually expelled; and that it is absolutely impossible that efficient relief should be afforded in such a difficulty by the Silvester method alone. In 1863 I advanced another step, and in an experiment on a patient suffering from apoplexy with mucous stertor, demonstrated that it was dangerous to change the position of the patient from one side to the other, as recommended by Dr. Marshall Hall; for, after the patient had been lying on one side for a time, the mucus and fluids gravitated into the lowermost lung, and upon the patient being rolled over on to the other side, the mucous fluid found its way across the trachea to the opposite lung, and on its way had been whipped into foam by the ingoing air, which foam, by filling up the larger bronchial tubes, quickly caused suffocation of gradually increasing intensity. Other cases soon after occurred in which I was able, by experiment and by examination of the chest during life, to confirm the above observation, especially in a case of active hæmoptysis in which blood took the place of mucus. Of course, water, slightly inspissated with mucus, would necessarily follow the same course as blood on changing the side, and this I have fully proved does take place in cases of drowning. Further, in one case in which I did not allow the side to be changed, pleuro-pneumonia supervened on that side only which had been lowermost. The change of side, therefore, which Dr. Marshall Hall had originally advised to be adopted during the use of his method must on these grounds, in future, be carefully guarded against.

I had long become entirely convinced that the prono-lateral positions were the only positions to be depended upon in the management of these cases and that the removal of the tongue and epiglottis from positions of danger was a part of such management. The advice given by the committee in 1862 "to open the mouth and draw the tongue forward" again raised the question of the possibility of treating cases in the supine position. I would refer to my account of our experiments in the supine position in 1856 in which some obstruction was encountered in attempting artificial respiration on the dead subject, and I would quote the account of a dissection made by me at the time to ascertain the cause of the obstruction.[4] "On cutting down and removing the right side of the pharynx with corresponding halves of the hyoid bone and thyroid cartilage in another subject a good view of the position of the parts was obtained. The epiglottis was in direct apposition, by its laryngeal surface, with the posterior wall of the pharynx, so as to preclude the possibility of the passage of air. When, however, the head was allowed to hang backwards over the edge of the table, the bending of the cervical vertebræ caused the posterior wall of the pharynx to recede from the epiglottis, so as to allow the free passage of air. If the tongue had been drawn forwards, would the epiglottis have been removed from the pharynx, or would the prone position cause it to fall forwards?" It will be seen by this, and especially by the question asked at the end, that I at that time doubted the propriety of trusting to the pulling forward of the tongue as a remedy.

In my paper on Stertor[5] is another dissection of the pharynx, which besides "demonstrating the respective positions of the tongue with the opened and closed mouth, suggests the necessity of caution being used in raising the head with pillows; for if the head be too much bent forward on the chest the tongue may lie in dangerous proximity to the pharynx even if the mouth is closed." This observation applies to the lateral position in a minor degree, but more especially to the recumbent position; and I never fail to adopt in practice the teachings to be derived from these dissections. I further made sure by experimenting on myself that dragging on the tip of the tongue would not affect its base or the epiglottis sufficiently to make it a trustworthy procedure as it was checked by the frænum, so, as before, I was driven to conclude that nothing could be ever safely trusted as a remedy in apnœa drowning and comatose conditions whilst the patient was supine.

In 1873 Dr. Benjamin Howard[6] of New York presented an essay to the National Lifeboat Institution. In it he says: "The foundation of all true progress in the use of artificial respiration was first well and truly laid by Marshall Hall." Dr. Howard had employed and taught both the Marshall Hall and Silvester methods, but in trying to obviate some defects which he found in them he took a new line of departure and advocated the employment of what he named the "direct method." He claimed for it greater exchange of air, greater facility and ease of application, and greater facility for the drainage of obstructive fluids, and says of it that it is more easy to be understood. You all doubtless know that this method consists mainly of pressure on the lower ribs in the supine position, the chest being elevated by a roll of clothing underneath the back so that the chest is on a plane inclined towards the head which is now at a lower level. Dr. Howard has shown clearly enough that no doubt should now remain in the professional mind as to the existence of obstructions in the pharynx, and that they must be removed and the effectual drainage of the lungs provided for as the first step in the treatment of the apparently drowned. I am not, however, prepared to admit that his method of carrying out the details of artificial respiration is the best possible. His objections to the Silvester method are evident and true, but his objections to the Marshall Hall method are neither evident nor true. In the Marshall Hall method, slightly modified to embrace the corrections of experience, we have, I believe, the best of all methods: (1) it is truly a very "ready method" and requires no apparatus; (2) the instructions are easy to be understood by ordinary unprofessional people; (3) on account of the immediate adoption and continued use of the prono-lateral positions this method is more to be trusted than any other for keeping the pharynx clear of obstruction; (4) it empties the stomach and gradually clears the lungs of the watery and frothy fluids and will surely and gently introduce sufficient air at each inspiration to take the place of the fluid which has been expressed; (5) the pressure applied to the back when the patient is prone exerts an influence on the heart, the blood is moved onwards towards the lungs which are, by the next movement, opened up to receive it, and thus the right side of the heart and the cerebral vessels are relieved of the engorgement which we know to exist; (6) the safety of the patient is more perfectly secured by keeping him on one side during the whole treatment, one lung being thus kept quite free; and (7) in apnœa, or, after a time, in drowning, when the upper lung is believed to be freed from water and frothy mucus, if more air is required, it can be introduced by elevating the upper arm above the head each time the patient is turned on his side, an addition, in part, of the Silvester to the Marshall Hall treatment.

A patient in a state of apnœa or syncope with greatly diminished circulation needs but little air for the preservation of life, and in drowning still less, on account of the presence of water in the lungs. It would be better to lay the patient on one side and to trust to nature alone than to have recourse to measures which would cause the forcible inspiration of air before the evacuation of water had been successfully effected. Artificial respiration, although undoubtedly the best and really only remedy when properly applied, becomes a source of increased danger if used injudiciously and too violently. It is not necessary in the Marshall Hall method to place a roll of clothing or anything else to elevate the chest when the patient is prone; we found by experiment that elevating the chest, even for a few inches, when the patient lay on his face, caused expiration.

You will observe, gentlemen, that I have not alone passed in rapid review the general question of drowning, but I have demonstrated some new principles upon which our future treatment of apnœa from whatever cause should be based—principles not theoretical, but which have stood the test of time and of experiment and have been already many times successfully applied in practice. As an addendum and as an illustration of the importance of being quite clear in our deductions from symptoms I will quote an observation made by Sir Benjamin Brodie[7]:—"In some instances, after remaining for a considerable time in a state of coma, respiration is again suspended; so that if recovery had been effected in the first instance by means of artificial respiration the animal may be said to die a second time. In others, although sensibility is restored, and with

[4] Marshall Hall: On Drowning, 1857, pp. 65 and 66. Transactions of the Royal Medical and Chirurgical Society, 1860.
[5] Lifeboat, Feb. 1st, 1873, p. 381.

[7] Brodie's Pathology, p. 70.

it the power of locomotion, it is only for a time; another attack of coma follows, and this is fatal. These statements are founded chiefly on experiments made on the lower animals, but there is no essential difference between the phenomena which occur in them and in the human subject. The case which I am about to mention justifies this observation. It was communicated to me by Mr. Rose, under whose care the patient was placed. A boy of the name of William Claridge, 17 years of age, attempted to hang himself on the evening of the 17th of July, 1820. He was discovered after a short period of suspension (the exact length of the period being unknown) and immediately cut down. He was at this time completely insensible; his face was livid, his lips were of a dark purple colour, the pupils of his eyes were dilated and motionless, his pulse not perceptible at the wrist. A pair of bellows being at hand, artificial respiration was immediately had recourse to. In about a quarter of an hour the diaphragm began to act. The artificial respiration was now discontinued. He breathed at irregular intervals, with *stertor*, and a *rattling noise*, from the *air passages being choked with mucus*. The pulse was now perceptible, but often flagging, and the surface of the body was disposed to be cold. The countenance was still of a livid hue, but the breathing became more frequent and regular, and there was also an improvement in the pulse. At the end of another hour an attempt was made to take some blood from the arm, but it was not successful; and from the coldness of the surface of the body it was thought expedient to place him in a warm bath. During the night he continued to breathe; *the stertorous breathing continued*. In the morning a vein was again opened in the arm, and 12 ounces of blood were taken away, but no relief followed. He continued insensible, cold on the surface, and *frothing at the mouth*, and died at the end of 24 hours from the time of his having been cut down. The body was carefully examined. The vessels of the brain seemed to be turgid, with dark coloured blood, but there were no other morbid appearances."

The case above related is an instance of what may be called secondary apnœa, and the cause of death is evidently looked upon by Sir Benjamin Brodie as some failure in the nervous system; whereas, from my observation on the causes and course of "mucous stertor," I am led to believe that death ensued in this as in other similar cases from bronchial suffocation, a sort of suffocative bronchitis, from neuro-paralysis from possible injury to the vagus, and that if the patient had been placed on one side and left to nature he might have survived. The patient was almost certainly drowned by his own mucus. With the exception that death in this case was subsequent to hanging and not to drowning it was, in its symptoms, almost identical with the case just related of the woman who had been conveyed from the receiving house on the banks of the Serpentine to St. George's Hospital and had there died from secondary apnœa.

In October, 1889, I was engaged with my assistant, Mr. John Stainer, in investigating the internal anatomy of the porpoise. On cutting into the trachea, which was strong and large (one inch in diameter) and completely surrounded by its cartilaginous rings, I was surprised to find it three parts full of sanguinolent spumous fluid. On squeezing the lungs, more frothy fluid exuded, and with it a number of slender white worms four or five inches in length. The lungs themselves were dense and spongy, and here and there were cysts containing worms in embryo. From these conditions I inferred: (1) that the animal had been drowned in the element in which it lived; and (2) that its larynx must be closed or the fluid would have drained away or have been poured out or have evaporated during the many rough handlings the creature had been subjected to since its death three days before. Further inquiry and investigation corroborated these assumptions, for the animal had become entangled in a fishing-net deep under the water and was thus deprived of its breathing requirement, air, and brought up dead. On dissecting the pharynx from behind I found that the larynx passed upwards and forwards as a tubular prolongation far into the post-narial cavity and that about one and a half inches below its orifice it was encircled and firmly clasped and closed by the palato-pharyngeus muscle. It would appear that the laryngeal tube was, when in a state of rest, kept closed by this outside sphincter (the palato-pharyngeus), so as to prevent the untimely entrance of water when the animal was beneath the surface of the sea. The tubular portion was composed of the elongated cornicula or cartilages of Santorini above and the epiglottis in front and below, loosely joined together by soft expansile tissue and mucous membrane. The cavities of the mouth and nares were completely separated by the velum palatinum. The fluid extract from the bronchial tubes amounted to six drachms; it was of specific gravity 1026—precisely the same as the sea-water in which the animal had been drowned.

INTESTINAL SUTURE BY MEANS OF CONTINUOUS CATGUT STITCH AND EXCISION OF THE MUCOUS MEMBRANE.[1]

BY H LITTLEWOOD, F.R.C.S. ENG.,

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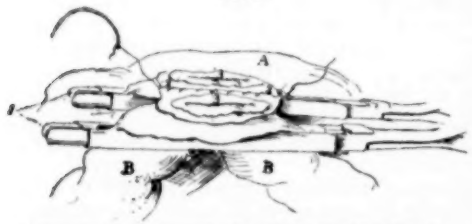
IN surgery, as in many other arts, the nearer we approach simplicity the more nearly do we arrive at perfecting any method, and it is astonishing how many cumbrous and complicated apparatus we have to discard in arriving at simplicity of detail. After the revival of the operation of intestinal suture the earliest methods adopted were by means of a simple suture without the assistance of any special apparatus. Many cases of simple suture were successfully performed, still many were fatal. It was thought that one of the main factors in the success of a case was the duration of an operation. These operations were often performed at a time when the patients were extremely ill, when the disease from which they were suffering was far advanced, and when the methods of combating shock were not so well understood as they are at the present time, so that many appliances to expedite the operation were invented, beginning with Senn's plates and ending, so far as the present is concerned, with Murphy's button and La Place's forceps. Now the operations are done earlier, when the patients are better able to stand them, and we have many ways of combating shock—heated operating tables, strychnia in large doses, hypodermics of camphor and brandy, and large saline injections either into the veins, the cellular tissues, or the rectum; or if we are operating on cases of acute intestinal obstruction the obstruction is first relieved by means of a Paul's tube. This intestinal drainage relieves the obstruction and prevents any further intestinal toxæmia, so that at the end of two or three weeks the more serious operations of enterectomy or lateral anastomosis can be performed with a very good chance of success. At the present time many surgeons have reverted to the earlier practice and have abandoned the use of any special apparatus, and I am amongst those who believe that all accessory apparatus for intestinal suture will ultimately be discarded and that we shall rely on our fingers, the forceps, and needles and sutures. It is with this object that I wish to describe the method which I have lately adopted for intestinal suture in gastro-enterostomy, enterectomy, &c. During the last session of the Leeds and West Riding Medico-Chirurgical Society Mr. W. H. Brown read the notes of a very interesting case of gastro-enterostomy in which the opening had closed, necessitating a second operation which had been successful. Just before this I had witnessed the post-mortem examination of a fatal case of gastro-enterostomy in which the opening had become almost entirely closed by the union of the cut edges of the mucosa. On thinking over these cases I determined to carry out the following details in performing intestinal suture. I venture to think that the method which I am advocating is worthy of further trial. I have done three successful colectomies and seven or eight gastro-enterostomies.

Gastro-enterostomy.—The abdomen is opened in the middle line, a suitable portion of the stomach is selected (either the anterior or posterior wall), and a loop of jejunum. These are now emptied and clamped by means of Doyen's pedicle forceps, the blades of which are covered with indiarubber tubing, and are held by an assistant so that the portion of

[1] A paper read before the Leeds and West Riding Medico-Chirurgical Society on Oct. 19th, 1900.

the stomach and bowel to be operated on are in close apposition. The parts are surrounded with strips of gauze or flat swabs. An incision about one and a half inches in length is now made into the stomach and bowel through all the coats down to the mucosa, and then with a pair of ophthalmic scissors and forceps the coats all round are separated from the mucosa for a short distance, so that a broad surface of all these coats may be brought into contact. The posterior edge of the stomach incision is now stitched to its full extent to a similar portion of the bowel with chromic

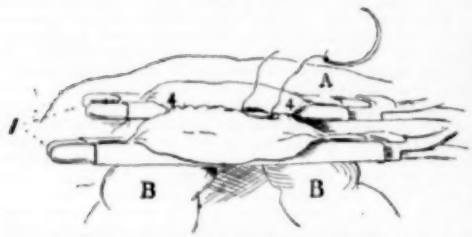
FIG. 1.



1, Doyen's forceps covered with rubber tubing clamping. A, Stomach. B, Jejunum. 2, Posterior edges of sero-muscular coats united with continuous catgut suture. 3, Mucous membrane excised from stomach and jejunum.

gut by means of a small curved Hagedorn's needle, the suture is knotted at both ends, and left long (Fig. 1). An elliptical portion of the mucous membrane is now excised from the stomach and a similar portion from the bowel and the parts are cleansed. The cut edges of the mucous membranes are now stitched the whole way round by a continuous stitch of catgut, knotting it at the two extremities of the openings so as to prevent its drawing too tightly and narrowing the opening. This done the anterior edges of the incisions into the stomach and bowel through the remaining coats are united by a continuous stitch, the same suture which was left long after uniting the posterior edges (Fig. 2). I am

FIG. 2.



4, Anterior edges of sero-muscular coats united with a continuous catgut suture, the edges of the mucous coats having been sutured in a similar manner. 1 and A and B refer as in Fig. 1.

not careful to bring serous coat to serous coat, but I rather prefer to bring the deeper layers into apposition. The clamps are then removed. As a rule there is no bleeding—the stitching prevents this. It is important not to pull the stitches too tightly. The gauze is removed and the abdomen is closed. The actual cutting and stitching can easily be done in from 10 to 15 minutes.

Enterectomy.—In doing enterectomy I perform a very similar operation. The parts to be excised are clamped above and below with Doyen's clamps and are removed with scissors. A portion of mucous membrane is excised so that it retracts beyond the cut edges of the other coats. This leaves a good broad surface for stitching. The two cut ends are approximated by the clamps and they are then closed by continuous catgut stitches in the same way as for gastro-enterostomy. Half the lumen, consisting of all the coats with the exception of the mucosa, is first stitched and fastened, then the mucous membrane the whole way round, interrupting and knotting the stitches in two places, and finally the remainder of the coats are sutured. The clamps are removed and the cut surfaces of the mesentery are approximated by interrupted sutures. The long handles of the clamps enable them to be held in such a manner that the hands of the assistant are well away from the field of operation.

I am indebted to my late house surgeon, Mr. F. Talbot, for the drawings.

Leeds.

A CASE OF ECTOPIC GESTATION WITH SEPTIC INFECTION OF THE GESTATION SAC.[1]

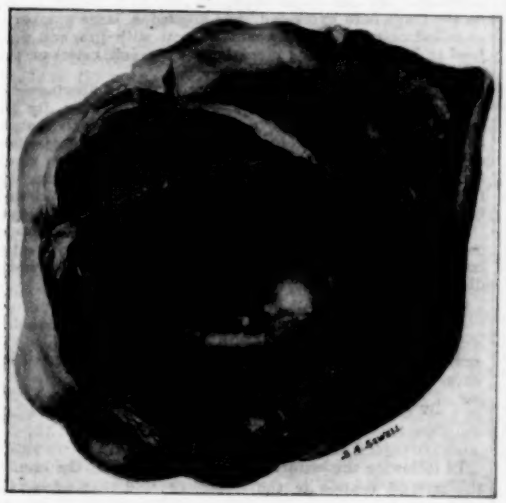
BY H. MACNAUGHTON-JONES, M.D., M.A.O., F.R.C.S.IREL. & EDIN.

A PATIENT, aged 30 years, was seen by me in consultation with Dr. Alexander McDonnell of Stamford-hill towards the end of March, 1901. She had been married nine years, her only pregnancy being one at the close of the first year. The periods had been normal and regular up to Nov. 24th, 1900. On different occasions she had been treated for retroversion and prolapse of the uterus. On Dec. 10th, 1900, she was attacked with violent abdominal pain which passed off but recurred on Jan. 10th, 1901. The catamenia appeared on Jan. 24th. On the 29th there was a recurrence of the severe pain, which lasted for three days, when she passed from the vagina what she described as "a yellowish pink substance somewhat like the roe of a mackerel." She remained in bed for a fortnight and on Feb. 10th was able to go out of doors. On the 25th she was attacked with severe hæmorrhage, and again she passed portions of the same substance as before. Hæmorrhage and pain ceased until March 11th, when the former again recurred. On examination I found a fairly large tumour behind the uterus and associated with it, the uterine cavity being some two and three-quarter inches in length. Believing with Dr. McDonnell the case to be one of ectopic gestation and having regard to the size of the mass and the presence of adhesions, abdominal cœliotomy was determined upon and the operation was performed on April 1st. The adhesions were separated with but little trouble, but in the delivery of the sac through the enlarged abdominal incision a portion of the thin wall ruptured and some extremely fœtid fluid escaped, creating at the time quite a stench. The pelvic cavity was repeatedly cleansed with weak formalin solution, and as the bowel was well protected from the sac the only parts really affected, and this was unavoidable, were the margins of the wound. These latter were well wiped with 1 in 1000 of formalin before being closed, and an iodoform gauze drain was left in. There was nothing unusual in the course of the case for 48 hours, when the temperature rose to over 100° F. and the patient commenced to vomit. This, however, was controlled by an effervescing mixture. Sulphate of magnesia and calomel were given, both being retained, but without any result. Still, the temperature did not again reach 100°, nor did the pulse exceed 96 up to the fourth day. In the afternoon of that day, as the abdomen was distended and there was no result with enemata, while the vomiting recurred and the countenance did not improve, the pulse reaching 110, I determined to reopen the abdomen. On doing so I found the atonic bowel to be considerably distended but could not detect any kink or cause for obstruction. The pelvic cavity was quite free from any fluid and there was no evidence of any peritonitis or of infection of the peritoneum, but the margins of the abdominal wound showed a dense slough for its entire extent. There had been no indication of this from the appearance of the incision. The patient had complained of little or no pain from the time of the operation. The slough at either side was cleared off as far as possible and a drainage tube was inserted. As I had to leave home the same night Mr. Targett kindly took charge of the case for me. The temperature fell the next day to normal, but again it rose to 100° in the evening, the pulse becoming more rapid (from 120 to 140) with a return of the vomiting. Despite every means employed to combat the sickness and maintain her strength, including enemata, saline injections, washing out of the stomach, &c., death occurred on the seventh day after operation.

[1] A paper read before the British Gynæcological Society on June 13th, 1901.

In this case the temperature never exceeded 100·2° F. and there was an absence of the usual symptoms of general peritonitis. Mr. Targett reported of the specimen that it consisted of the right uterine appendages and a gestation sac, the latter being inclosed within the outer end of a dilated Fallopian tube:—

On section the wall of the gestation sac was found to be infiltrated with blood-clot and fibrin, as in a tubal mole. Where suppuration has occurred the placental tissue is separated from the inflamed tube by pus, and chorionic villi are in actual contact with the inflammatory products. The mucous membrane of the tube is destroyed and replaced by granulation tissue. The tumour is roughly spherical in shape and measures 8 × 7 × 6 centimetres (3¼ × 2¾ × 2¼ inches) in its chief diameters after fixation in formalin. A portion of the posterior wall of the mass has been removed and reveals two cavities. The larger of these is the gestation sac containing a fœtus, while the smaller is a space formed between the gestation sac and the wall of the dilated Fallopian tube. In the recent state this latter space was filled with very offensive pus. Flattened out on the half of the tumour nearest to the uterus is the right ovary. The characters of the gestation sac are precisely those of an apoplectic or blighted ovum. It measures about five centimetres in its chief diameter, and its wall is composed largely of blood-clot in various stages of consolidation. The interior is lined with amnion which is unevenly raised by hæmorrhages beneath it. A fœtus measuring 2·75 centimetres is attached to the wall of the sac by an œdematous umbilical cord 1·75 centimetres in length, corresponding with the stage of development at the end of the second month. The suppurating cavity, semilunar in shape, represents that part of the dilated ampulla of the tube not occupied by the gestation sac. From this relation it would appear that the tubal gestation had ended in a molar pregnancy or apoplectic ovum, and that secondary



Gestation sac with fœtus; the upper cavity shown in the drawing is that in which the septic fluid was contained.

suppuration had been set up within the dilated tube and around the ovum. Consequently the pus had collected in that internal cavity which always surrounds a tubal mole owing to the ovum being adherent at only one spot upon the wall of the dilated tube.

It would seem that the source of infection must have been through the adherent bowel. The patient having suffered from retroversion of the uterus the early symptoms might naturally lead to the impression that it was an enlarged retroverted and gravid uterus and tend to make the diagnosis less certain. From the size of the tumour and the impression which it conveyed of fixation by adhesions I determined on the abdominal operation, though, as events proved, considering the nature of the sac, the vaginal one would have been the safest one for the patient. Had I a similar case again, with rupture of a fœtid sac, having protected the bowel I should first char the margins of the abdominal wound with the thermo-cautery, and then at some distance from the charred surfaces make a new incision at either side before closing the wound. Not long since I opened the abdomen for a large and very fœtid subperitoneal abscess which had penetrated the peritoneum. Having evacuated the pus and thoroughly cleansed out the abdominal cavity with formalin, disinfecting the edges of the wound, which were covered by a foul and deep slough, I removed this at either side before bringing the edges together and drained. Contrary to my expectation the patient made an excellent recovery.

Harley-street, W.

ARE NOT SOME PATIENTS SAID TO BE AFFLICTED WITH GASTRIC ULCER REALLY SUFFERING FROM A DIFFERENT DISEASE?

BY W. HALE WHITE, M.D., F.R.C.P. LOND.,
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IT is allowed that the malady commonly diagnosed as gastric ulcer is very much more common in women than in men; also that many more cases in women occur in the two decades from 20 to 40 than in any other two decades, whilst in men the disease is commoner later in life. Further, the mortality in men is higher than in women. For instance, Dr. R. Saundby has stated[1] that among 15 deaths at the Birmingham General Hospital due to gastric ulcer 11 occurred in men and four in women, a striking contrast when we remember the greater frequency of the diagnosis of gastric ulcer in women. Because of these facts I have for years been accustomed to teach that one of two conclusions must follow: either the outlook of gastric ulcer in women is much more favourable than it is in men, or many cases occurring in women and classified as gastric ulcer at the bedside are really instances of some other undescribed malady. I have also maintained that the second is the more likely view, for it relieves us of the difficulty of explaining the otherwise obscure facts that so-called gastric ulcer is at its maximum frequency earlier in women than in men and is commoner in women than in men, although actually more fatal in men, and this view renders it more easy to understand why the condition diagnosed as gastric ulcer is so frequently associated with chlorosis, for this disease is almost confined to women and is met with at about the same time of life as that at which the diagnosis of gastric ulcer is most frequently made. I have therefore often suggested that there is a disease met with chiefly, or perhaps only, in women usually between 20 and 40 years old; that its chief symptoms are gastric pain, nausea, sickness, and hæmatemesis, that these symptoms are not dependent upon ulceration of the stomach, any ulceration that may be present being quite superficial and no more than might occur secondarily to the hæmorrhage; and that the diagnosis from genuine gastric ulcer occurring in women is very difficult, yet the facts that in spite of serious gastric symptoms extending over years the patient is not wasted, has been or is often chlorotic, and has none of the mechanical effects of gastric ulcer, such as adhesions, pyloric stenosis, or subphrenic abscess, may help us to a right conclusion.

The prognosis is entirely different from that of gastric ulcer, for, apart from hæmorrhage, these patients are not liable to the numerous serious complications of gastric ulcer. The prognosis is good, although relapses are frequent. Occasionally, but excessively rarely, the sufferers may die from hæmorrhage, and then no cause for it is found. The disease is in many cases, I apprehend, closely related to chlorosis, for it certainly is often associated with it or occurs in those who have formerly suffered from chlorosis, but it may, I think, exist apart from chlorosis. Until we know something of the cause of chlorosis we can hardly hope to know what the association is. I have not hitherto liked to put this view on paper for want of direct evidence in its favour, but now that surgeons have taken to opening the stomach for severe bleeding some support is forthcoming. Operators are already accustomed not to find an ulcer even when the hæmorrhage has been severe. Thus Mayo Robson[2] says: "If no ulcer be found anywhere and the bleeding proves to be capillary or from small undiscoverable ulcers." I take it that here we may assume that if the ulcer proves to be undiscoverable no ulcer exists. My proposition seems also to be supported by the following quotation from Mayo Robson[3]: "Erosions.—Of these Dieulafoy has described two varieties: (*a*) simple erosions, consisting apparently of mere abrasions of the surface

[1] Brit. Med. Jour., vol. ii., 1900, p. 1613.
[2] THE LANCET, March 10th, 1900, p. 683.
[3] Brit. Med. Jour., Feb. 2nd, 1901, p. 257

epithelium, which, though so small as to be scarcely perceptible to the naked eye, may give rise to the most alarming hæmorrhage. On the post mortem table abrasions of this kind may be easily overlooked, but as seen when hæmorrhage is going on the mucous membrane seems to be studded with numerous bleeding points." This surely is a different disease from that which we know to be gastric ulcer, with its possible sequelæ of adhesions, sub diaphragmatic abscess, and other well-known complications, and it is surely more likely that the abrasions were the result, rather than the cause, of the hæmorrhage.

Byrom Bramwell[4] does not go so far as the proposition I am urging, but he does go as far as to say, "I am disposed to think that gastric ulcer in the young (chlorotic) female is on the whole a less serious and fatal disease than in men," and he proceeds to suggest that the reason is that in young chlorotic women the ulceration is superficial. I would go further and say that probably many of these cases in women are examples of a different disease, and I would suggest that as the ulceration even if present is superficial and trifling it may be secondary to the hæmorrhage. In other words, that the essence of the disease is not ulceration but a liability to gastric hæmorrhage independent of ulceration.

Dr. Newton Pitt kindly allows me to refer to a patient under his care, as she illustrates my point. She was a woman, aged 37 years, who for seven years had been liable to attacks of gastric pain, vomiting, and hæmatemesis. She was admitted into Guy's Hospital blanched and collapsed and died from hæmatemesis. The most careful examination at the necropsy failed to detect any source for the blood. The stomach was sent to the museum and the curator, Dr. Lauriston Shaw, failed to find any lesion of it.

Dr. Frederick Taylor also kindly allows me to mention the case of a woman who was admitted into Guy's Hospital under his care. She had for several years been seen by Dr. Lauriston Shaw as an out-patient for gastric pain, vomiting, and hæmatemesis. The stomach was opened but no ulcer or source for the hæmorrhage could be found. The patient made an excellent recovery.

Cases can also be quoted from literature in support of my view. Thus Hirsch[5] records the case of a female domestic servant, 25 years old, who suffered from pain, vomiting, and hæmatemesis. The stomach was opened and as no ulcer could be found it was sewn up. The patient recovered completely. Armstrong[6] records the case of a woman, aged 35 years, in whom there was no definite evidence of ulceration, although the hæmatemesis was severe. The author reports that "no deep excavated ulcer was found, but blood was seen oozing from three different places which looked like linear fissures in two cases and in the third like a stellate fissure. Around the fissures over an area of one centimetre there was an apparent loss of superficial epithelium." Here certainly there was no definite ulceration; the changes, if they existed, were no more than might be produced by blood in bursting through the epithelium. Mansell Moullin[7] records the case of a woman, aged 34 years, whose stomach was opened on account of severe hæmatemesis. He says: "One very small bleeding point was found on the posterior wall of the stomach near the pylorus. It could scarcely be called an ulcer." Both Armstrong's and Mansell Moullin's cases, like that of Hirsch, recovered completely. Gilford[8] operated on a woman, aged 30 years, who had suffered severely from hæmatemesis for 15 days. Although there had been hæmorrhage all this time and the stomach was most carefully examined both inside and out no trace of an ulcer could be seen. She died nine days after the operation and then an ulcer three centimetres in diameter was found. This, Gilford says, was in a position in which it could not have been missed during the operation, and therefore this case is an example of severe hæmorrhage lasting 15 days, and yet when the stomach was examined with the greatest care no ulceration could be found. It does not by any means prove that the disease which I am describing naturally proceeds to ulceration; all it shows is that it may do so after the manipulation necessary to search for an ulcer. If subsequent experience should confirm this it clearly becomes important to diagnose, before operating, whether the blood proceeds from an actual ulcer.

As I have already mentioned, when the ulceration found by those who are earnestly seeking for it is trifling and superficial it is quite possible that it is the result of the hæmorrhage, for blood coming from the vessels into the cavity would naturally tear the epithelium. Thus Gilford quotes from Weir and Foote two fatal cases; in both the ulcer was so minute that it was difficult to find it when the whole stomach was spread out in a good light. In one of the cases its presence was positively shown only by transmitted light.

It has always seemed to me that as chlorosis is virtually confined to women at a period of high sexual activity the disease must be in some way connected with the function of reproduction, and I would suggest that the disease which I am urging should be separated from gastric ulcer is perhaps so connected, and in support of this I may recall the fact that many have considered that hæmatemesis may be vicarious menstruation and also the fact that these female sufferers may repeatedly come under observation for pain after food and hæmatemesis, but these symptoms wear themselves out before the menopause. Also, the association of this gastric ailment with chlorosis may, perhaps, be the reason for the frequency of the association of dyspepsia with chlorosis, for it may be that chlorotic dyspepsia is only a mild form of the same malady as causes severe pain after food and hæmatemesis, and in favour of this view I think it may be urged that severe dyspeptic symptoms are commoner with chlorosis than with other anæmias. My late house physician, Dr. A. E. Salter, acting on the views here expressed, has treated a large number of so-called gastric ulcers in young women with iron and good food and he finds that the patients do much better on this than on the usual treatment.

Lastly, I would call attention to the importance of separating gastric ulcer proper from this disorder, for the surgeon may find after he has opened the stomach that he can do nothing to control the hæmorrhage; some cases have died after operation, but the condition is of itself very rarely fatal. It is difficult to see how anything but harm can follow operation when the mucous membrane is studded with bleeding points; and, indeed, Mayo Robson[9] says: "Although the operative treatment of parenchymatous or capillary hæmorrhage by any surgical method would seem to be of doubtful value," and then he refers to five cases which died.

Harley-street, W.

[4] THE LANCET, March 9th, 1901, p. 688.
[5] Berliner Klinische Wochenschrift, 1896, p. 847.
[6] Brit. Med. Jour., vol. ii., 1899, p. 1068.
[7] THE LANCET, Oct. 20th, 1900, p. 1126.
[8] Guy's Hospital Reports, vol. liii.

FOREIGN BODY IN THE BRONCHUS; TRACHEOTOMY; RECOVERY.

BY F. B. JUDGE-BALDWIN, M.R.C.S. ENG.,
SURGEON TO ROTHERHAM HOSPITAL.

IN following the history of foreign bodies in the bronchi the interest centres in the treatment, and that universally recommended is tracheotomy. This operation is called for firstly to lessen the danger from glottic spasm in the event of the foreign body moving and being coughed up; and, secondly, to afford a supplementary outlet for the foreign body itself. The further treatment consists in waiting for the development in the lung and dealing by direct operation with the possible—and probable—abscess that may arise. The following case adds one to the number of successes.

On Oct. 9th, 1900, a boy, aged five years, a very intelligent child, was coming home from school when he picked up a beech-nut, cracked it, put it into his mouth, and almost immediately began to choke. When met by a friend a few minutes afterwards he was still choking, his eyes were suffused, and his face was reddish-blue in colour. About an hour or so afterwards he was brought to my house because his voice "had gone husky." The breathing was rapid, averaging from 25 to 30 respirations per minute, with some stridor, and with whispering speech, though the speech was occasionally clear and the breathing free from stridor. I examined the larynx with the laryngoscope and found nearly complete bilateral paralysis of the adductors—i.e., the crico-arytænoïdei laterales and arytænoïdeus—but no foreign body could be seen. The trachea was clear for some four or five rings and was not unduly vascular. On stripping the patient and examining his chest I found considerable deficiency of respiration on the left side over an area of the

[9] THE LANCET, March 9th, 1901, p. 688.

size of a five-shilling piece, situated over the third rib about midway between the anterior axillary fold and the sternum, or rather nearer the former—in fact, the place of early phthisical development. The respiration of the other lung was unduly exaggerated and the chest was heaving with insuction of the episternal and substernal spaces. I sent him home with orders for him to be kept quiet in a warm room. I saw the patient on the next morning when the respirations had increased to 32 per minute, the chest giving the same signs. I suggested a second opinion and the patient was seen by Mr. R. J. Pye-Smith of Sheffield who gave the same opinion as myself. We both agreed that tracheotomy was the proper treatment, but was not immediately necessary unless urgent symptoms should arise. The same night I was called on account of a spasm which had subsided before my arrival. Subsequently during the night the boy had further difficulty of breathing at intervals, but he slept when he was not so disturbed. The next day I reported the condition to the consultant and it was decided to do the operation the same night. (In passing, I might mention that the child's friends had turned him upside down during the night and had patted his back—a course I had not dared to venture upon. He was very sick, but no foreign body was brought up.)

Before operation, which was performed at 6 P.M. on the 11th, the patient's temperature was 100° F, the pulse was 80, and the respirations were 40. The condition of the vocal cords did not appear to be a happy one for the administration of chloroform, and everything, therefore, was close at hand in readiness for an emergency which after a few whiffs of the anæsthetic duly occurred in the form of spasm and cessation of breathing, with coldness of the extremities. Mr. Pye-Smith quickly finished the operation, but even when the trachea was well opened no respiratory act ensued until after artificial respiration had been continued for some time. The bronchi on the left side of the chest were well searched with long forceps, but nothing could be found. The boy was then held up by the heels and some blood from the bronchi ran out. A large tracheotomy tube was then put in and the opening in the trachea was further kept open by silver sutures with a loop through the cartilages, brought round and tied round the neck behind. The boy was then put back to bed; he was warm and of good colour. Three hours afterwards he was dozing. The temperature was 100·8°, the pulse was 80, and the respirations were 40.

At 6 A.M. on the 12th the patient was collapsed; his temperature was 101·8°, his pulse was 92, and his respirations were 44, with Cheyne-Stokes breathing. The tube was removed and cleaned. There was considerable pain in the abdomen. Milk and a sedative draught were given. At 10 A.M. the boy was more comfortable; the bad symptoms were subsiding and he had slept 45 minutes. The temperature was 101·4°, the pulse was 88, and the respirations were 40. The patient slept for eight hours during the night after coughing up much glairy mucus. The temperature on the 13th was 100°, the pulse was 94, and the respirations were 36. Three days after operation (on the 14th) fluid food was taken well. Some green tenacious mucus was coughed up. The temperature was 99°, the pulse was 100, and the respirations were 32. On the 16th the patient had a comfortable day and night. The stools were examined but no nut was found. The temperature was 98·4°, the pulse was 100, and the respirations were 30. On the 17th the voice passed from a whisper, the respirations being 28. At 9 A.M. on the 18th two small bits of the husk of the beech-nut were found on the dressing over the tube, which was removed. The temperature was 99°, the pulse was 90, and the respirations were 28. On the 20th the temperature was 98°, the pulse was 96, and the respirations were 24. The chest was examined on the 22nd, when respiratory and vocal sounds were found to be deficient in the left lung over the pectoralis major close to the axillary border, otherwise the chest was clearing of rhonchi and sibilli which had been present since the operation. The wound was healthy and the wires were removed. On the 28th the patient came downstairs for the first time, his temperature being 97°, his pulse 84, and his respirations 20. The wound in the neck was not quite healed, but the boy was apparently well. Since this time the chest has slowly cleared, but considerable weakness remained for some time. At present one may say that nothing remains to remind him of his adventure but the scar of the tracheotomy wound.

The interesting points of the case are, to my mind, the following. It is well known that in children paralysis of the adductors takes place from slight causes, and on the face of it I was inclined to question the fact that a portion of the nut had gone into a bronchus. Again, the condition of the child as to "cold" and possible false croup antecedent to the accident could only be cleared up by the friends, and as the patient had once before had some false croup a cold might easily be overlooked if not severe, while his general condition would favour croup. These points must pass through the mind when considering the treatment and they were duly balanced. The only direct evidence was that of the boy, that he had cracked a nut and had tried to swallow it. The sudden oncoming of the attack favoured the presence of a foreign body and the treatment was subsequently proved to have been correct by the small bits of husk coughed up on the dressing. I consider that the success of the treatment in this case was due in a great measure to the excellent nursing which the boy obtained.

Rotherham.

THREE CASES OF PUERPERAL ECLAMPSIA; WITH CRITICAL NOTES ON THE ETIOLOGY, PATHOLOGY, PROGNOSIS, AND TREATMENT.

BY J. POLLOCK SIMPSON, M.D. GLASG.

PUERPERAL eclampsia occurs so rarely in the experience of the private practitioner that it is desirable that all cases met with in practice should be put on record. This may add to the value of experience already gained and may stimulate others to more careful and accurate observation by systematically examining the urine, which is the chief means we have of ascertaining the severity of the case, separating the paraglobulin from the serum-albumin, and noting the relationship between the two as to quantity. Herman has shown that the quantity of the former is greater in those cases where the patients recover, while in the cases of those who die the quantity of serum-albumin is in excess.

As regards the etiology of this disease many theories and hypotheses have been put forward to account for the convulsions—e.g., the convulsions are the cause of the albuminuria—but in two of the cases described below (Case 2 and Case 3) I discovered the albuminuria before the convulsions were established—in Case 2 nearly three weeks before the eclampsia occurred and before delivery, and in Case 3 three days previously to delivery and the convulsions. Of recent years a toxæmia or uræmia has usually been believed to be the true cause of this complication of the parturient state; at all events the convulsions are attended by a great decrease in the elimination of urea. Whether urea is the actual excitant of the nerve centres or whether the excitant is a product of decomposition derived from urea has not been satisfactorily explained, but the uræmic theory finds the largest amount of support. The accumulation of the toxins in the blood is due to the faulty elimination by the kidneys of the urea or waste products of tissue metabolism which are much increased in the pregnant state. In nephritis these waste products accumulate rapidly, but pressure also contributes largely, and it is mostly in primiparous cases, where pressure and tension are greatest, that eclampsia occurs. According to statistics 60 per cent. of the cases of eclampsia occur in primiparæ. Constipation, which is the rule in pregnancy, contributes in a great measure to this pathological condition.

The following cases occurred in a busy practice with no assistance from trained nursing, as the patients belonged to the working-class. Notwithstanding the absence of those delicate attentions from a trained nurse—e.g., passing the catheter and measuring the urine—so necessary to exact scientific observation and deduction, the patients all recovered and only one child was lost (in Case 1, which occurred at the seventh month). Nevertheless these cases have a value of their own, as in one case I was able to follow the history of the patient up to her second confinement with still a trace of albumin in her urine without any untoward symptom and she made a good recovery. In Case 1 the eclampsia was antepartum, in Case 2 it occurred in the second stage of labour, while in Case 3 the eclampsia was post-partum following the delivery of twins. In all the

cases the result was successful and justified the treatment adopted.

CASE 1.—The patient was a primipara, aged 23 years. I was asked to see her on Nov. 3rd, 1884, as she was said to be in a fit, which, however, had passed off by the time I reached her. She was seven months pregnant with her first child. On questioning her I found that she had gone out the previous day and had come home wet and with damp feet. Cold shivers had set in, so much so that the bed, as she said, shook under her. This was succeeded by violent headache, which the patient described as if the top of her head was being lifted off and on. On the day of my visit her face was noticed to be swollen; her legs were also slightly swollen, but later they became very brawny, especially after her convulsive seizure. She could not recall any of the events of the day. I put her on a mixture of bromide of potassium and chloral hydrate. Next day (the 4th) she had four or five slighter seizures and did not feel at all well; indeed, she was so ill that the question of induction of labour was discussed, but this was put off till the morning of the 7th, when she had the premonitory symptoms of another seizure, for which chloral hydrate (20 grains) was given, and then I introduced an ordinary gum elastic bougie into the uterus and allowed it to remain *in situ* till labour pains began, nine hours after its introduction, at intervals of 15 minutes. Next day the pains were rather better and I withdrew the bougie. In the evening there was a slight show of mucus when I made a vaginal examination and found the bag of membranes protruding between the lips of the os, which was of the size of a florin, but as the pains were not very vigorous I re-inserted the bougie which accelerated the pains considerably. I was called at 5.30 A.M. on the 9th and found on examination per vaginam that the membranes were ruptured and that the breech was presenting at the vulva. I completed the labour, the child being dead when delivered, and the placenta was easily expelled by expression. The child proved to be a female of seven months. The urine on the third day was very scanty and highly albuminous. Its specific gravity, taken on the fourth day, was 1012, and after delivery on the 9th 1020, on the 10th 1023, and on the 12th 1030. The swelling of the face and legs disappeared rapidly after delivery, but the urine was still loaded with albumin on the 12th, otherwise the patient made a good recovery, only complaining of backache and occasionally slight headache. On March 27th, 1885, she was put on tincture of perchloride of iron (five minims), which she continued to take for nine months off and on, but the albumin had not quite disappeared, amounting to a well-marked ring, at her second confinement, which occurred on March 6th, 1886, when she was delivered of a fine, healthy boy without a bad symptom. There was no tendency to flooding either at the first or second confinement, which Spiegelberg says is usual.

CASE 2.—The patient was a primipara, aged 21 years. On March 3rd, 1886, I received a communication about this patient relative to the swelling of her legs and feet. I found her complaining of occasional headache, dimness of vision, and giddiness. The urine was scanty, but there was no pain on passing it. She had not noticed any swelling of her face or puffiness, but her mother had noticed it to exist underneath the eyes. She ate heartily, enjoyed her food, and slept well. She had been sick two days previously for the first time since becoming pregnant. The urine was light-amber-coloured, and on testing it with nitric acid it was found to be loaded with albumin. The specific gravity was not noted. I put her on tincture of perchloride of iron and solution of acetate of ammonia. On the 13th the specific gravity of the urine was 1020, and it was loaded with albumin. The swelling of the legs was much the same, but the patient's sensations were better, and she thought that the medicine had removed her headache. I received a message on the 22nd to say that she was in labour. On arrival, at 10.50 A.M., I found her walking about; the pains were infrequent and not very strong. On examination per vaginam I found the os nearly fully dilated, with a head presentation; the membranes were ruptured and the waters had drained away. She complained of headache. The bowels were open. At 2 P.M. the labour was more advanced; the anterior lip of the os was very œdematous. The patient still complained of headache. At 3.45 P.M. the vertex was much lower. As she was lying on the bed I noticed a slight twitching of the right arm which her sister, who was nursing her, thought was shivering, but I at once saw that she was going to have a convulsive seizure. I seized my forceps at once, but before I had time to apply them she was in a strong convulsive fit, her face being drawn up into a sardonic grin; she was blue in the face and struggling for her breath, every moment appearing as if it was to be her last. I at length got the forceps adjusted with little effort and proceeded to extract the child as quickly as safety would permit. By the time I had the head extracted the worst part of the fit had passed off, and I extracted the trunk easily by pressure on the fundus. The child was a female; she was strong and vigorous and cried lustily. The placenta was easily expressed. The patient, having recovered somewhat from the fit, complained loudly of pain. She was semi-conscious, there was no excessive hæmorrhage, and the pulse was 120. When I left her, half an hour after delivery, she knew who I was, but the headache was still severe. I immediately received a message to the effect that she was in another fit; but on my arrival it had passed off, and she was quite rational. This seizure was not quite so strong as the first. I called at 11 P.M., and found that she had had another fit which had lasted for 10 minutes, but that she had had two hours' sleep since, and she was still sleeping at the time of my visit. The pulse was 115. On the 23rd, at my visit, the patient was asleep. The pulse was 112, the face was puffy and swollen, and she complained of severe vertical headache. She had passed no urine since delivery; I therefore drew off one and a half pints of urine, which was straw-coloured, and she felt easier. At 11.30 P.M. the patient was awake and cheerful, the pulse being 114 and feeble. I drew off about a pint of urine. On the 24th she expressed herself as feeling better. Her headache was less and she passed a considerable amount of urine which was paler in colour, with a good deal of sediment (urates). The lochia were not offensive. The pulse was 102. The specific gravity of the urine was 1025; on boiling it, it became almost solid, it contained crystals of urate of soda and tube-casts in abundance, both granular and hyaline. At 11 P.M. the patient was better, her headache being only slight, and she partook of nourishment freely, her pulse being 107. On the 25th the pulse was 106, the temperature was 101·8° F., and the general condition was good. The bowels were relieved at 11.45 P.M., when the pulse was 100 and the temperature was 100·4°. On the 26th the headache was more frontal, the pulse being 105, the temperature 100°, and the lochia were slightly offensive. Headache was still persistent on the 27th, when the pulse was 99 and the temperature was practically normal. The specific gravity of the urine was 1028 and the albumin was greatly diminished. On the 29th the patient had a relapse from having got out of bed, and there was a tendency to syncope. The pulse was 105, and the temperature was 99·4°. The urine was scanty and there was an increase of albumin. Its specific gravity was 1030; it was darker in colour and it had a smoky appearance. On the 30th the headache was still persistent, the pulse being 106, and the temperature 99·8°. From this time on till April 30th, when I ceased to visit her, the patient's condition varied. She would have headache one day which was gone the next. The temperature was variable as well as the urine, which at my last visit still contained a trace of albumin, its specific gravity being 1020.

CASE 3.—The patient was a primipara, aged 23 years, who was delivered of twins on Oct. 21st, 1894. Three weeks before this occurrence the patient had noticed some swelling in her feet and legs, but she took no particular notice of it as she thought that it might be due to the pressure of the child. On the 18th she had noticed for the first time that her face was swelling. On the 20th I examined a specimen of urine and found it to be loaded with albumin and solid on boiling; its specific gravity was 1025. On the 21st I received a message to attend the patient. On arrival I found, on examination per vaginam, the os to be of the size of a crown-piece. The waters had all drained away. The case proceeded slowly for five hours when the vertex was on the perineum, and as the pains were feeble I applied forceps and extracted the head easily and without the signs of a convulsive seizure. When the child was fully born I discovered a second child in utero. As the bag of waters protruded through the vulva I ruptured it and extracted the second child in the same manner, the after-birth following quickly by slight expression without any signs of convulsions, and I began to think that the worst was over. The pulse was 136 and the temperature was 100·8° F. About one and a half hours after leaving her the husband

called to say that she had been having fits almost from the time that I had left her. I prescribed a draught containing chloral hydrate and bromide of potassium, and as I had another primiparous case in hand I left her, my assistant watching the case for me. When later I was able to see her I found her insensible, the pulse being 128 and the temperature subnormal. As I had no pilocarpine, and it was late on Sunday evening I administered a diuretic and diaphoretic mixture. My assistant continued to watch the case, administering chloroform occasionally when the fits were frequent and severe. On the 22nd I was called at 5.45 A.M. as the patient was in another fit. I administered chloroform, which quieted her, and this was kept up intermittently till 8 30 A.M. The fits began by a slight twitching of the left hand which gradually spread to the right side, when the head was drawn violently to the latter side, the teeth closing by clonic contraction of the jaw, biting the tongue at times and slightly drawing blood; the average duration of the fits was five minutes. Slight pressure on the carotids had an effect upon the duration of the fits, and as their intensity decreased the patient produced a peculiar suction noise with her nose as if in violent inspiration. The temperature was 102·5° and the pulse was 146. As the seizures were beginning to weaken the strength of the patient, as was evidenced by the rapid pulse-rate (150) and the high temperature (105°) at 10 A.M. I obtained some pilocarpine and gave her a hypodermic injection of one-fifth of a grain. Soon afterwards profuse diaphoresis set in and at 10 30 P.M. she had not had a fit since. I then drew off 20 ounces of urine, its specific gravity being 1016. The pulse was 136 and the temperature was 99·7°. The patient partook freely of milk and other liquid nourishment. The urine contained one-third per cent. of albumin. On the 25th on my visit I found her maniacal and fanciful, shuddering, and imagining that crawling beasts were about. The temperature was 99·4° and the pulse was 125. She remained maniacal for three days. On the evening of the 27th I gave her 15 grains of sulphonal which caused sleep for about eight hours. On the 28th she appeared to be much better. She was cheerful, but remembered nothing of what she had gone through. A specimen of urine drawn off and carefully examined was found to contain more para-globulin than serum-albumin, and after separation of the para-globulin there was a considerable reaction with nitric acid. From the 28th to Nov. 11th she made an uninterrupted recovery with the exception of a slight tendency to mania. On the latter date there was little reaction with nitric acid; it was scarcely observable with heat.

PATHOLOGY.

Owing to the small number of cases where a necropsy can be obtained on those patients who die the pathology is not well established. Some authorities have observed a dropsy of the ventricles of the brain which they assume causes pressure and nerve-irritation. Others have noticed an anæmic condition of the brain and nerve centres, while another authority is of opinion that the fits are due to thrombi and to the minute hæmorrhages which they have observed, which they assert are caused by the increased coagulability of the blood in pregnancy, but this is not proved by experience. Most authorities believe that the pathological state is to be found in the kidneys, Bright's disease causing faulty elimination of the waste products of tissue metabolism.

PROGNOSIS.

The death-rate in this disease is not quite so high as is generally believed. Authorities on the subject are very divergent, ranging from an abnormally low to an abnormally high rate. This may be due in some measure to partisanship, for men who adopt and advocate a certain line of treatment are apt to show off their own results in the most favourable light, while the results of men who adopt another treatment are less favourably commented on. Galabin gives the death-rate as being 30 per cent., but this I am certain is much too high—one-third of this rate I consider nearer the normal. To give a word of hope to the relatives of the patient in a grave complication of this kind is important, and if Herman's view is correct this can be done almost with certainty by systematic examination of the urine where possible. If the albumin is principally para-globulin then with judicious treatment recovery may be predicted with safety, while if the convulsions are due to Bright's disease recovery would be a matter of some doubt.

TREATMENT.

We are apt in this disease as in all others to become empirical in our treatment. A certain line of treatment is very often discredited by the method in which it is employed and carried out, by a want of care and observation on the part of the practitioner in not selecting the proper treatment for the case in question. No special line of treatment is suitable for all cases, inasmuch as many cases of eclampsia will recover speedily with a simple diuretic and diaphoretic mixture and application of heat to the body by means of the hot air or vapour bath or by the simpler means of hot-water bags, but there are other cases in which this is quite inadequate to produce the desired effect—viz., the cessation of the convulsions. One must then adopt more powerful remedies for ridding the system of the effete matter and for allaying the irritability of the cerebro-spinal system. Morphine has been much used of late and has produced good results with different authorities. Lyle[1] records one death in eight cases lately treated in this manner at the Rotunda, giving a death-rate of 12·5 per cent. Fitzgerald[2] records two cases treated with morphine and atropine with successful results. The results with this remedy have certainly proved encouraging. Morphine is a powerful anodyne in allaying the irritability of the cerebro-spinal system and so controlling the convulsions, but even with this remedy there are cases where fatal results are likely to follow—e.g., cases of nephritis with renal inadequacy. It is taught in the text-books of materia medica that opium or its derivatives should not be given in Bright's disease, as it causes convulsions and death; it is possible that this teaching is just as true as it was 20 years ago notwithstanding the seeming contradiction in treating eclampsia with morphine. It has been asserted by Herman, and I think justly, that in the great majority of cases of eclampsia the albumin found in the urine is not due to nephritis, but to altered blood-pressure in the blood-vessels, and when this is so the patient after delivery rapidly recovers and it leaves no evil effects behind; but when the albumin is due to nephritis the condition is much more grave—the kidneys take a much longer time to recover, and the patient is more apt to die than those in the former category. It is just possible that the fatal case recorded by Lyle belonged to the latter class and that morphine is certain to cause fatal results in nephritic cases. It is important, therefore, carefully to examine the urine quantitatively as well as qualitatively, and should the para globulin be in greater proportion than the serum-albumin, then it belongs to the class where altered pressure is the cause of the albuminuria, thus indicating, in my judgment, whether or not morphine should be used. Pilocarpine is a powerful remedy but it is distrusted by some. In doses of one-fifth of a grain hypodermically it produces profuse diaphoresis in less than 20 minutes, and in my last case of post-partum eclampsia, after diuretics, diaphoretics, chloral, bromide, and chloroform had all had a fair trial without in any way curing the convulsions, it acted in the most happy manner. The patient had no more convulsions after its administration, and none of the bad effects, such as profuse salivation, which, according to some, follow its use, occurred. Others have found pilocarpine to produce the same result. Inglis[3] records a case in which the convulsions ceased immediately after the subcutaneous injection of one-fifth of a grain. Recently treatment by infusion or transfusion of saline solution, either subcutaneously or intravenously, has been much practised and advocated. Jardine[4] records 22 cases treated in this manner with three deaths, equal to a death-rate of nearly 14 per cent. Intravenous transfusion I consider bad treatment even in cases of severe post-partum hæmorrhage, as saline solutions can be introduced into the circulation with safety by less dangerous methods—e.g., per rectum and subcutaneously. In all cases of eclampsia I should advocate the less heroic methods first, and if no good result be obtained then I should resort to the more powerful remedies, preferring pilocarpine to any other drug in suitable cases. I believe that the great dissimilarity in the methods which are adopted and the results which are obtained in the treatment of this complication of the puerperal state are due to the want of method in approaching the treatment of the disease. First of all, if the case permits of this investigation, we must ascertain whether the para-globulin or serum-albumin is in

[1] Brit. Med. Jour., Jan. 19th, 1901.
[2] Ibid., Nov. 24th, 1900.
[3] Ibid., Sept. 15th, 1900.
[4] Transactions of the Obstetrical Society, May 11th, 1901.

the greater proportion. If we obtain this comparative analysis then the treatment is easy, but if the practitioner be unable to obtain this data then I should advocate the simpler methods—first, diuretics, diaphoretics, bromide, chloral, and chloroform—before resorting to morphine or hypodermoclysis, keeping in mind the safety of the patient above all other things, and the particular treatment as of secondary importance. If the eclampsia appears in the first months of pregnancy forcible measures in emptying the uterus should be avoided even under chloroform, as one never knows how much damage may be caused to the uterus by this means. Nature is, as a rule, gentle in her methods, therefore the bougie is more likely to act beneficially than is forcible emptying of the uterus. It should be kept *in situ* so long as to produce powerful and regular contractions, and then withdrawn, to be re-inserted if the pains lag. Venesection is a valuable form of treatment if the patient is plethoric, but to bleed indiscriminately is, in my judgment, bad treatment.

Blandford-street, W.

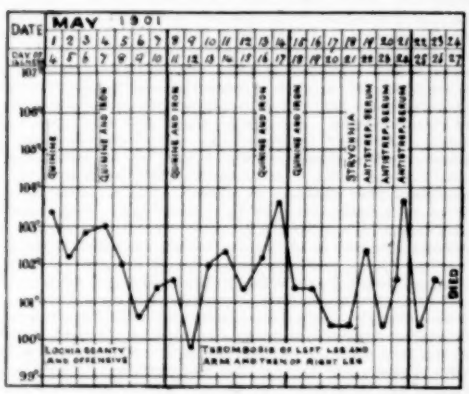
Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF PUERPERAL FEVER TREATED WITH ANTI-STREPTOCOCCIC SERUM; DEATH.

BY F. W. THURNAM, M.B., C.M. EDIN.

A MARRIED woman, aged 34 years, the mother of four children, and who had had three miscarriages, was safely delivered by me, after a normal labour, at 6 P.M. on April 27th, 1901. All appeared to be going on satisfactorily till the fourth day (May 1st) when her temperature, which had been 99° F. the previous day, was 103·4°, and the lochia were scanty and offensive. Quinine and uterine injections of 2 per cent. solution of creolin reduced the temperature one degree on the following day, but it rose again till on May 4th it was 103°. Doses of five grains of quinine with 20 minims of solution of perchloride of iron given every four hours brought it down to 100·4° on the 6th, and, after an intervening rise to 101·8°, to 99·8° on the 9th. After this date there was thrombosis of the left leg and subsequently of the arm on the same side and of the other leg. There was some thickening, probably perimetritis, mostly on the left side. There was diarrhœa from May 7th to 19th, which was checked to some extent by chalk mixture and benzo-naphthol with port wine. A troublesome crop of boils formed on the buttocks and one of them went on to a bedsore, after some



incontinence of urine, which was albuminous. The rigors were numerous and there was more or less delirium, though the tongue remained clean throughout. The pulse and respiration did not correspond with the temperature. From facts which came to my knowledge the source of mischief pointed only too plainly to the nurse who was dismissed on May 4th. On the 14th the temperature was 103·6°, falling by the 17th to 100·4°. On the 19th it was 102·4°, when Dr. H. B. Carter saw the patient with me and we decided to try anti-streptococcic serum, which I procured from the Jenner Institute, and at 8 P.M. 20 cubic centimetres were injected, the temperature falling to 100·4° at noon on the 20th, when I injected 10 cubic centimetres. On the 21st the temperature was 101·6°, so at 11 P.M. I injected 30 cubic centimetres of serum. Half an hour afterwards the temperature was 103·6°, but on the next morning it was 100·4°, rising on the 23rd to 101·7°. The patient died at noon on May 24th. The respiration rose gradually from 20 to 60 per minute, latterly with moist râles. From the 18th strychnia and brandy were necessary.

Having been probably fortunate in this being the only case of puerperal fever which I have had to encounter in my own practice I desire to call attention to the rise of 2° after the injection on May 21st. I, however, cannot be certain that this was due to the anti-streptococcic serum, and consider that bleeding and the injection of saline solution would not have been of benefit under the circumstances and that the combination of iron and quinine was on the whole preferable.

New-cross, S.E.

A CASE OF PUNCTURED FRACTURE OF THE SKULL COMPLICATED WITH OTHER SEVERE INJURIES; RECOVERY.

BY EDWARD A. PIGGOTT, L.R.C.P. & S. EDIN., L.S.A. LOND.

ON August 30th, 1900, I was called by telegraph some nine miles from my residence to attend the subject of this note. The patient, a builder and contractor by occupation, aged 46 years, in the course of his duties had been unfortunate enough to fall down a deep well; but I cannot do better than quote the following account of the accident from the *Brick and Pottery Trades Journal*:—

"In August last Mr. J. was engaged in carrying out extensive works at the Manor, Cowlinge, Suffolk. He had employed an experienced well engineer to sink a new well for the water-supply, and being desirous of personally examining the work he requested the well foreman to let him down to the bottom. Unfortunately, Mr. J. went a good deal quicker than he anticipated, for a man employed on the surface to manage the tackle discovered when too late, that Mr. J. had got into the large bucket before everything was ready. It appeared that the man who had charge of the handle had not attached it to the roller in a proper manner, and Mr. J. was dropped no less a distance than 102 feet. His fall was broken by becoming impaled on the bore iron which happened to be still standing in the well. It spiked him through the thigh and held him there until assistance was forthcoming. He was taken to the top, where it was discovered that the thigh was torn open for a considerable distance, and his skull severely fractured."

The patient was removed to his residence from the scene of the accident as soon as practicable, and a careful examination made at 4 A.M. on the 31st revealed the following injuries. There was a wound of the scalp some two and a half inches square exposing the bone, situated a little posterior to the left parietal eminence and encroaching on the position of the lambdoid suture. There was no sign of depression or fissure of the external table of the skull, but in the centre of the wound there was a distinct puncture which penetrated the diploë. On the inner side of the right thigh, some three inches above the knee-joint, was a lacerated wound measuring four inches transversely and extending along the inner border of the rectus femoris, beneath the sartorius, and terminating deeply amongst the muscles in the neighbourhood of the apex of Scarpa's triangle; from this wound there was profuse venous hæmorrhage. Fortunately the femoral artery escaped injury. The right lumbar region, the right buttock, and the whole of the right thigh were one continuous track of ecchymosis—in fact, black with effused blood. The pelvic bones and femur were free from lesion.

The condition of the patient at 11 A.M. on August 31st was as follows. He was perfectly unconscious; his breathing was laboured and at times was inclined to be stertorous. The

pupils were unequal, the pulse was 120, and the temperature was normal. As no urine had been passed since the accident on the previous afternoon a catheter was passed and the bladder was emptied. The head was shaved and an ice-bag was applied; small quantities of milk and soda-water and beef-tea were ordered to be given at intervals. The patient was placed upon a water-bed as soon as one could be procured. For the next few days he remained in a state of semi-consciousness, alternating with most violent attacks of delirium, requiring at times two men in addition to the nurses to control him. The catheter had to be employed night and morning until Sept. 5th, on which date the bladder resumed its normal action. On the evening of Sept. 7th the temperature suddenly rose to 100·8° F. The whole day the patient was more or less delirious, the symptoms indicating irritation of the brain; the next morning the temperature fell to the normal point, and during the remainder of the treatment never rose above 100·4°—the point attained on Oct. 4th and 6th, its usual range being from 97·4° to 99°. The pulse-rate was generally between 80 and 96; the hightest rate recorded was 120 on the evening of Sept. 7th. The respiration rate ranged between 20 and 24. The wound in the thigh was very tedious in its progress and necessitated a hypodermic injection of morphine (a quarter of a grain of bi-meconate) each night when dressed. A considerable amount of sloughing of integument and fascia was unavoidable; it eventually healed by granulation and was systematically dressed for the last time on Oct. 31st, the patient leaving home for the sea-coast on Nov. 6th.

Remarks.—The case is remarkable, more especially as regards the depth of the fall. There were never any decided symptoms of compression, those of irritation being most marked. Abscess and the trephine I most dreaded, but the brain mischief gradually and steadily improved. Great credit was due to a man working on a platform at the bottom of the well at the time of the accident, who, although suffering from three fractured ribs and a laceration of the face caused by the falling gear, managed by means of the tackle to send his more severely-injured companion to the surface. I must express my indebtedness to Mr. R. H. Wilkin of Wickhambrook who saw the patient with me immediately after the accident, and also to Mr. R. W. Waring of Cavendish, who met me several times in consultation.

Clare, Suffolk.

ASPARAGUS AND HÆMATURIA.

BY J. S. MACKINTOSH, M.R.C.S. ENG., L.R.C.P. LOND.

ON May 25th last an old gentleman, aged 73 years, sent to me a bottle of his urine, passed between 11 P.M. and 4 A.M. on the previous night, which had alarmed him by its dark colour. On testing it gave reactions for albumin and blood and under the microscope plenty of blood-corpuscles and a few blood-casts could be seen. This, together with the smoky colour of the urine, pointed clearly to the kidney itself as the source of the hæmorrhage. On calling to see the patient I found him busy in his study, looking and feeling quite well. The history he gave was that he was very fond of asparagus and that two days previously he had had a fine bundle sent to him from the country, which he had consumed at luncheon and dinner on each of the two days, taking at each meal "about as much as he could grasp with one hand." He owned an astronomical telescope, and after dinner on the second day (the evening before the hæmaturia took place) he went out to give a demonstration of the moon to some friends. The day had been warm, but the evening, with the strong east wind prevalent at that date, became very cold. The patient did not notice the cold until the end of the demonstration, when he felt that he had got chilled. About midnight he had a desire to urinate and he passed the urine of which he sent to me a specimen. In the evening he sent to me another specimen of the urine passed during the day after I had seen him. In this there was no trace whatever of albumin, blood, or casts. There has been no abnormality of the urine since. The patient had a prejudice against drugs, so, as there had been no symptoms whatever of an acute nephritis beyond the condition of the urine, he was recommended to confine his diet to slops and to keep himself under observation.

Asparagus is a stimulant diuretic causing dilatation of the afferent and contraction of the efferent blood-vessels of the kidney. The patient, then, with the kidneys engorged with blood exposed himself to a thorough cooling of the surface of the body. The mode of production of the hæmaturia seems plain enough. What is not so clear is its transient character. Apparently, a train had been well laid to lead to an explosion of an acute nephritis, but ended, happily, in a mere fizzle. The patient himself is, for his years, remarkably active, both in mind and body. Of spare habit and small stature he enjoys, as a rule, excellent health, beyond occasional slight "uricacidity" manifestations. He exhibits a degree of arterio-sclerosis not uncommon at his age, but of chronic interstitial nephritis no symptoms at all. The moral appears to be that exposure to a chill after indulgence in asparagus is not without its dangers.

Hampstead, N.W.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

BEDFORD COUNTY HOSPITAL.

A CASE OF PANCREATIC CYST OR EFFUSION INTO THE LESSER PERITONEAL CAVITY; DRAINAGE; RECOVERY.

(Under the care of Dr. R. H. COOMBS and Mr. W. GIFFORD NASH.)

THE diagnosis between true cysts of the pancreas and effusions into the lesser peritoneal cavity is very difficult even after a laparotomy has been performed. In the following very interesting case the arguments certainly appear to be in favour of the cyst being an effusion into the small sac of the peritoneum, and much may be said on behalf of Mr. Gifford Nash's contention that the absence of a history of trauma is a fairly trustworthy criterion that a doubtful cystic swelling in this situation is a cyst of the pancreas rather than a peritoneal effusion.

A girl, aged four years, was admitted into the Bedford County Hospital on Feb. 3rd, 1900, under the care of Dr. R. H. Coombs. In the summer of 1899 she had whooping-cough and at the end of October began to suffer from attacks of abdominal pain and vomiting. These attacks continued and she lost flesh. An attack of abdominal pain on Feb. 1st was the cause of her being taken to the hospital. There was no obtainable history of any injury to the abdomen. On admission the abdomen was found to be slightly distended but not tender, and by some it was thought to contain a little free fluid. There was some resistance to be felt below the left costal margin. Mr. Gifford Nash saw the child a few days after admission and found some tenderness and deep resistance in the left epigastric and hypochondriac regions just below the edge of the ribs (Fig. 1). No

FIG. 1. FIG. 2. FIG. 3.

Fig. 1, condition from Feb. 3rd to 12th. Fig. 2, condition on Feb. 13th. Fig. 3, condition on Feb. 20th. The shaded portion shows the extent of the tumour.

lump of any kind could be detected. The symptoms suggested trouble in the region of the pancreas, but no definite diagnosis could be made. During the night of Feb. 12th the child frequently complained of severe pain in the stomach, and next morning a tumour was seen and felt in the left epigastric and hypochondriac regions (Fig. 2). The tumour extended upwards under the ribs and downwards into the left loin. The margin was rounded and the tumour was elastic and fluctuating. It suggested from its situation, shape, and rapid appearance a hydronephrosis of the left kidney, but the presence of colon resonance behind it showed that it did not arise from this organ. It was also suggested that it was a splenic tumour, but its rapid appearance and cystic nature put this out of the question. Mr. Nash concluded that it must be either a pancreatic cyst or an effusion into the lesser peritoneal cavity. During the next few days the tumour increased in size and became more tense and fixed. It passed across the middle line and extended upwards so as to be continuous with the area of liver dulness. It extended downwards to the umbilicus (Fig. 3). The stomach lay in front of the upper part of the swelling. Except that the appetite was poor and that there was some pain there were no gastric, intestinal, or urinary symptoms and no rise of temperature. Examination of the blood showed no change except a slight increase of leucocytes. A diagnosis of a pancreatic cyst having been made, it was determined to drain it by an anterior incision.

An operation was performed on Feb. 20th. An incision three inches long was made in the left linea semilunaris over the most prominent part of the tumour. The stomach was found flattened out over the anterior and upper part of a very tense cyst. The incision was prolonged downwards and the transverse colon was found crossing the lower part of the cyst. A vertical incision was made in the gastro-colic omentum which formed part of the wall of the cyst. After tearing through a layer of fatty tissue a white fibrous cyst was exposed resembling in appearance an ovarian cyst. A trocar was inserted and about 30 ounces of dark-brown fluid were evacuated. This spurted out as if retained under considerable pressure. The edges of the cyst were stitched to the

TABLE I.—TRAUMATIC PANCREATIC CYSTS OR EFFUSIONS INTO THE LESSER PERITONEAL CAVITY.

No.	Author.	Year.	Reference.	Sex.	Age.	Interval between injury and appearance of tumour.	Nature of injury.	Treatment.	Result.
1	Kulenkampff.	1881.	Berliner Klinische Wochenschrift, 1882.	M.	39 years.	About 2 months.	A number of heavy blows upon the abdomen.	Aspiration; incision.	Recovery.
2	Senn.	1884	American Journal of the Medical Sciences, July, 1885.	M.	19 ,,	About 5 weeks.	A fall from a wagon, striking the left side of the abdomen.	Aspiration; incision.	,,
3	Kuster.	1887	Deutsche Medicinische Wochenschrift, Leipsic, 1887.	M.	46 ,,	8 years.	Thrown from a wagon.	—	—
4	Fenger.	1888	Chicago Medical Journal, February, 1888.	M.	8 ,,	3 weeks.	A fall from a horse, bruising the abdomen.	—	—
5	Steele.	,,	Chicago Medical Journal, April, 1888.	M.	40 ,,	1 year.	Crush between two railway wagons.	—	—
6	Treiberg Karkov.	,,	Annals of Surgery, November, 1888.	M.	Young.	—	Assault by roughs.	—	—
7	Jordan Lloyd.	,,	Brit. Med. Jour., vol. ii., 1892, p. 1051.	M.	20 years.	3 months.	Knocked down by a horse.	Aspiration; incision.	Death.
8	Karewsky.	1890	THE LANCET, Feb. 28th, 1891, p. 500.	M.	25 ,,	4 weeks.	A fall upon the left side of the abdomen.	Incision.	Recovery.
9	,,	,,	THE LANCET, Feb. 28th, 1891, p. 500.	M.	58 ,,	3 months.	An injury to the left costal margin.	,,	,,
10	Cathcart.	,,	Edinburgh Medical Journal, July, 1890.	M.	13 ,,	2½ ,,	A cart wheel passed over the upper part of the abdomen.	—	—
11	Riegner.	,,	Berliner Klinische Wochenschrift, 1890.	F.	25 ,,	3 years.	A fall from a great height.	—	—
12	Pitt and Jacobson.	1891	THE LANCET, June 13th, 1891, p. 1315.	M.	21 ,,	3 years.	A kick in the abdomen.	Aspiration; incision.	Recurrence 1 year later.
13	Richardson.	,,	Boston Medical and Surgical Journal, 1891.	M.	50 ,,	3 or 4 months.	Strain in lifting and fall upon the abdomen.	—	—
14	Jordan Lloyd.	,,	Brit. Med. Jour., vol. ii., 1892, p. 1051.	M.	27 ,,	10 days.	Thrown down and the abdomen knelt upon.	Aspiration; incision.	Recovery.
15	Littlewood.	1892	THE LANCET, April 16th, 1892, p. 871.	M.	38 ,,	3 weeks.	Horse threw and stamped upon him.	Aspiration; incision.	,,
16	Lynn Thomas.	,,	THE LANCET, March 31st, 1894, p. 799.	M.	2 ,,	,,	Run over by the wheel of a cab.	Aspiration.	,,
17	Brown.	1894.	THE LANCET, Jan. 6th, 1894, p. 21.	M.	17 ,,	3½ months.	Crushed between buffers.	Aspiration; incision.	,,
18	Fisher.	,,	THE LANCET, Jan. 27th, 1894, p. 201.	M.	17 ,,	5 weeks.	Crush.	Aspiration; incision.	,,
19	Hadra.	1896.	THE LANCET, August 8th, 1896, p. 391.	M.	9 ,,	3 weeks.	Blow.	Incision.	,,
20	Cushing.	1897.	Annals of Surgery, vol. xxviii., p. 337.	M.	31 ,,	4 weeks.	Blow on the epigastrium from a deal plank.	,,	,,
21	Randall.	1898.	THE LANCET, Dec. 24th, 1898, p. 1702.	M.	14 ,,	1 year.	Kick in the back by a horse.	,,	,,
22	Barker.	1899.	Brit. Med. Jour., vol. i., 1899, p. 663.	M.	14 ,,	A few weeks.	Fall.	,,	,,
23	Stanley Boyd.	1900.	Clinical Journal, Feb. 21st, 1900.	F.	20 ,,	1 year.	Struck on the chest by a swinging door.	,,	,,
24	Fisk.	1899.	Annals of Surgery, November, 1900.	M.	36 ,,	20 months.	Blow on the abdomen.	Drainage.	,,
25	Phillips.	1900.	THE LANCET, Jan. 19th, 1901, p. 181; Brit. Med. Jour., vol. i., 1901, p. 149.	M.	22 ,,	5 ,,	Kick on the abdomen by a horse.	Aspiration; drainage.	Death.

Total, 25 cases, consisting of 23 males and two females; average age 25 years.

TABLE II.—NON-TRAUMATIC PANCREATIC CYSTS.

No.	Author.	Year.	Reference.	Sex.	Age.	Duration of symptoms.	Nature and history of early symptoms.	Treatment.	Result.
1	Luecke.	1866.	Senn's paper in American Journal of the Medical Sciences, July, 1885.	F.	43 years.	4 months.	Pain in the right hypochondrium; swelling which gradually filled the abdomen.	Drainage.	Death.
2	Gussenbauer.	1872.	,,	M.	40 ,,	10 weeks.	Sudden illness after a big meal; vomiting.	Incision.	Recovery.
3	Hulke.	1878.	THE LANCET, Dec. 3rd, 1892, p. 1273.	F.	47 ,,	About 40 years.	Tumour since girlhood; attacks of pain, vomiting, and constipation.	Attempted excision.	Death.
4	Rokitansky.	—	Senn's paper, loc. cit.	F.	26 ,,	3 years.	Tumour commenced in the upper part of the abdomen.	Attempted excision.	,,
5	Riedel.	—	,,	F.	45 ,,	9 ,,	Began as a small tumour in the upper abdomen.	Excision.	,,
6	Salzer and Billroth.	—	,,	F.	33 ,,	15 ,,	Began as a lump above the umbilicus.	Attempted excision.	,,
7	Kramer and Halm.	—	,,	F.	16 ,,	?	Began with pain and vomiting, then gradual distension of the upper abdomen.	Drainage.	Recovery.
8	Bozeman.	1881.	Medical Record, Jan. 14th, 1882.	F.	41 ,,	7 ,,	Pain in the right iliac region.	Excision.	,,
9	Thiersch.	,,	Senn's paper, loc. cit.	M.	38 ,,	2½ weeks.	Taken ill at work; swelling in the region of the stomach; nausea.	Incision.	,,
10	Dixon.	1884.	,,	M.	42 ,,	3 months.	Symptoms of cholelithiasis; jaundice for 10 days.	Puncture.	Death.
11	Pearce Gould.	1887.	THE LANCET, August 8th, 1891, p. 290.	F.	36 ,,	2 years.	In 1885 lump in the right side of the abdomen; in 1886 jaundice.	Incision.	Death in 1891 from cancer of the sinus.
12	Treves.	1888.	THE LANCET, Sept. 27th, 1890, p. 655.	M.	40 ,,	7 or 8 months.	Throbbing around umbilicus; dragging pains.	,,	Recovery.
13	Pearce Gould.	1891.	THE LANCET, August 8th, 1891, p. 290.	F.	24 ,,	7 years.	Attacks of biliary colic; three weeks of severe pain above the umbilicus.	,,	,,
14	Swain.	1892.	Brit. Med. Jour., vol. i., 1893, p. 456.	M.	38 ,,	3 months.	Four weeks previously strain and colic whilst running in a race.	,,	,,
15	Clutton.	,,	THE LANCET, Dec. 3rd, 1892, p. 1273.	F.	35 ,,	20 years.	—	Enucleation.	,,
16	Bilton Pollard.	1894.	Brit. Med. Jour., vol. i., 1899, p. 594.	M.	34 ,,	6 ,,	Abdominal distension and pain; colic for six years; vomiting for three weeks.	Incision.	,,
17	Turner.	,,	THE LANCET, July 4th, 1896, p. 25.	M.	34 ,,	8 months.	Pain after a meal; tumour; vomiting and constipation.	,,	,,
18	Ramsay and Kelly.	1895.	Annals of Surgery, vol. xxii., p. 771.	F.	38 ,,	6 ,,	Pain in the upper abdomen; nausea and vomiting.	,,	,,
19	McPhedran.	1895-6.	Brit. Med. Jour., vol. i., 1897, p. 1400.	M.	53 ,,	4 years.	Attacks of colic apparently biliary; two operations.	,,	Recovery with sinus.
20	Bilton Pollard.	1896.	Brit. Med. Jour., vol. i., 1899, p. 594.	M.	56 ,,	6 weeks.	Abdominal distension, pain, and vomiting; loss of flesh.	,,	Recovery.
21	Penrose.	,,	Annals of Surgery, vol. xxv., p. 491.	F.	33 ,,	2 years.	For two years lump in the left upper abdomen; later backache and loss of flesh.	,,	,,
22	Keen.	,,	,,	F.	15 ,,	4 ,,	For four years a lump in the left upper abdomen; dyspepsia, pain, sickness.	,,	,,
23	Horrocks.	,,	THE LANCET, Jan. 23rd, 1897, p. 242.	M.	56 ,,	2 months.	Pain, nausea, vomiting, heaviness, languor, and loss of flesh.	Aspiration.	Death.
24	Bilton Pollard.	1897.	Brit. Med. Jour., vol. i., 1899, p. 594.	M.	36 ,,	4 weeks.	Pain in the back, two weeks later sudden pain in the hypochondrium.	Incision.	Recovery.
25	Malcolm.	,,	THE LANCET, Jan. 29th, 1898, p. 279.	F.	45 ,,	7 months.	Slight tenderness.	Excision.	,,
26	Doran.	,,	THE LANCET, Dec. 18th, 1897, p. 1591.	F.	24 ,,	2 years.	Spasmodic epigastric pain.	Incision.	,,
27	Nash.	1900.	—	F.	4 ,,	5 months.	Obscure pain in epigastrium, increased resistance; tumour for two weeks.	,,	,,
28	Deaver.	1899.	Annals of Surgery, November, 1900.	F.	58 ,,	12-15 years.	Increasing stoutness; constipation; prolapse of the vagina for two years.	,,	,,
29	Morton.	1897.	Annals of Surgery, June, 1899.	F.	30 ,,	2 years.	Lump in the epigastrium; attacks of colic.	,,	,,

Total. 29 cases; consisting of 11 males and 18 females; average age, 36 years.

edges of the peritoneum only and the wound was closed except where a drainage-tube was left in. The cyst wall was about one-eighth of an inch thick and was very vascular. Its interior felt velvety and looked deeply congested. A finger in the cyst felt the liver above, the spleen and left kidney to the left and behind, and at the back of the cyst the aorta and an irregular soft mass, presumably the pancreas. In the position of Winslow's foramen a small pocket could be felt but it was apparently closed.

The fluid in bulk was almost black, but in a test tube it appeared reddish-brown from the presence of blood. It was alkaline, highly albuminous, converted starch into sugar, and emulsified fats. It did not contain bile. The specific gravity was 1017. Under the microscope were seen numerous red blood corpuscles, some large granular cells which stained with methylene blue, and some tyrosin crystals.

After the operation there was a little discharge from the sinus of a clear fluid which irritated the skin to a slight extent. The sinus was kept open by a small tube or piece of gauze until the middle of May, when the tube was omitted for good. A week later the fistula was completely healed, having continued discharging for three months. The child was seen in December, 1900, in perfect health, and no trace of any swelling could be felt in the abdomen.

Remarks by Mr. GIFFORD NASH.—There is no doubt that this cyst occupied the position of the lesser peritoneal cavity and that it communicated with some duct of the pancreas as shown by the nature of the fluid. Was the fluid in the lesser peritoneal sac or was it in a cyst of the pancreas which occupied the sac? I am inclined to think that it was an effusion into the lesser cavity of the peritoneum for the following reasons. 1. The history of a sudden appearance of a fluid tumour in the left side of the abdomen. No cyst due to the dilatation of a duct could form in a single night. Senn has proved experimentally that sudden blockage of a pancreatic duct does not produce a retention cyst. The position of the swelling, too, was exactly in the situation of the lesser peritoneal cavity. 2. It might be expected that the contents of a cyst due to a dilated pancreatic duct would be clear, somewhat like the fluid contained in a ranula, but here the fluid was highly albuminous and contained much blood—in fact, it was such a fluid as one would expect to be poured out by a highly-congested peritoneum when stimulated by the presence of an irritating fluid. 3. The quantity of fluid which was poured out in a single night must have been quite a pint. After the cyst was opened and the irritation was removed the quantity discharged daily was but a few teaspoonfuls and in character clear and glairy.

My explanation of the case is as follows. The attack of whooping-cough in 1899 caused some injury or an effusion of blood into the pancreas. This gave rise to the occasional attacks of pain and vomiting and to the deep epigastric resistance. Possibly a small cyst formed in the pancreas at the seat of injury. The manipulations of several persons attempting to diagnose the case between Feb. 3rd and 12th ruptured the cyst and produced some extravasation of pancreatic fluid into the lesser peritoneal sac, and this set up a profuse hæmorrhagic effusion.

Until 1892 this case would undoubtedly have been considered to be a pancreatic cyst, but in that year Mr. Jordan Lloyd[1] published a paper on Two Cases of Effusion into the Lesser Peritoneal Cavity, and since that date many similar cases have been reported. Mr. Jordan Lloyd pointed out that the tumour caused by effusion into the lesser peritoneal cavity lies in the left hypochondriac, epigastric, and umbilical regions, and that the stomach lies above and the colon below it. The conclusions he came to may be summed up as follows: (1) that contusions of the upper part of the abdomen may be followed by the development of a tumour in the epigastric, umbilical, or left hypochondriac regions; (2) that such tumours may be due to a fluid accumulation in the lesser peritoneal cavity; (3) that when the contents of such tumours are found to have the property of rapidly converting starch into sugar it may be assumed that the pancreas has been injured; and (4) that many such tumours have been regarded as true retention cysts of the pancreas, and that this opinion has been formed on insufficient evidence.

The first paper on cysts of the pancreas was published by Senn in the *American Journal of the Medical Sciences* in July, 1885. Several of the cases collected by him had been operated on as ovarian cysts and the attempts at removal had almost invariably proved fatal. With regard to these cysts of the pancreas Senn stated that—"(*a*) All cases have occurred in adults; (*b*) sex has no influence; and (*c*) traumatism is a frequent exciting cause."

Subsequent experience has shown that the first two of these statements require modification. "(*a*) All cases have occurred in adults." This is no longer true, as out of 54 cases which I have collected 12 have occurred under the age of 20 years, one patient being aged two years and another four years. Out of 25 traumatic cases nine have been under 20 years of age. "(*b*) Sex has no influence." This is not so, as out of 25 cases in which there was a clear history of injury 23 were males and only two were females. On the other hand, out of 29 cases in which there was no history of injury 18 were females and 11 were males. It has occurred to me that tight-lacing may have some influence in producing the preponderance in females. "(*c*) Traumatism is a frequent exciting cause." If it is considered that every case in which a cystic collection of fluid occurs giving the reactions of pancreatic juice is a cyst of the pancreas, then this statement is true, but if these cases are divided into true pancreatic cysts and effusions into the lesser peritoneal cavity containing pancreatic fluid then I would say that traumatism is a frequent cause of the latter, but, as far as is known, not of the former.

Senn also pointed out that the rapid growth of the tumour is in favour of pancreatic origin, that pain is not a constant symptom, and that there are no serious symptoms apart from pressure on the surrounding structures. He gave nine affections from which these cases must be diagnosed—viz., (1) malignant disease of the pancreas or adjacent organs; (2) aneurysm; (3) hydatid cyst; (4) affections of the retro-peritoneal glands; (5) hydro- or pyo-nephrosis; (6) cyst of the suprarenal body; (7) circumscribed peritonitis or exudation; (8) ascites; and (9) cystic disease of the ovary. To these, I think, might be added distension of the gall-bladder.

I have collected 54 cases of pancreatic cyst or effusion into the lesser peritoneal cavity and have classified them as traumatic and non-traumatic. The traumatic cases number 25 (Table I.) and the non-traumatic 29 (Table II.). Of the traumatic cases 23 were males and two were females, and of the non-traumatic cases 11 were males and 18 were females. The average age of the patients in the traumatic cases was 25 years and that of the non-traumatic 36½ years. The age of the youngest patient in the traumatic cases was two years and that of the non-traumatic cases was four years. In most cases due to injury a cyst requiring operation was produced in a few weeks, but the non-traumatic cases usually gave a long history, often of many years' duration, and in some of these it is possible that there may have been an injury which had been forgotten. Patients in whom there was no history of injury generally gave a history of attacks of pain, occasionally very severe, in the epigastrium (so-called cœliac neuralgia), followed eventually by an acute attack of pain and sickness and formation of a swelling. This sudden attack probably announced the rupture of a cyst into the lesser peritoneal cavity. The nature of the injuries causing these effusions has been falls, blows, or crushes.

Some of the earliest cases recorded were treated by attempts at enucleation, but this method proved almost invariably fatal. Complete removal is impossible except in the case of a small cyst of the pancreas, such as that operated on by Clutton, in which the cyst sprang from the tail of the pancreas. Aspiration has been adopted many times, but in some instances it has proved fatal and in many it has been followed by recurrence of the tumour. Lynn Thomas treated a traumatic cyst in a child, aged two years, by aspiration with complete success. It is, however, generally agreed that aspiration is dangerous, even as a means of diagnosis, as it is almost impossible to avoid penetrating the stomach which is stretched out over the front of the tumour, and as a means of treatment it is generally useless. The acknowledged operation is incision and drainage, which is most easily done by an anterior opening. The cyst is opened between the stomach and the transverse colon. It is probable, however, that a posterior incision below the last rib on the left side will give the best result and this method has been adopted in a few instances. The fistula generally heals in less than four months, but may heal even after two years' duration. In one case at least it has remained permanently and in another (Gould's case) it was followed by a malignant growth which proved fatal. In Jacobson's case the cyst refilled a year after treatment by incision and drainage. The risk of operation by incision and drainage appears to be very slight.

[1] Brit. Med. Jour., vol. ii., p. 1051.

ROMAN CATHOLIC SANATORIUM, PIETERMARITZBURG.

A CASE OF NEPHRO-LITHOTOMY IN WHICH THE DIAGNOSIS OF RENAL CALCULUS WAS CONFIRMED BY THE X RAYS.

(Under the care of Dr. O. J. CURRIE.)

THE difficulties of obtaining a skiagram of a renal calculus are great, partly because of the large amount of soft tissues through which the rays have to pass and partly because of the blurring of the shadow owing to respiratory movements. There is, however, a third cause which is probably as important as either of the others—namely, the nature of the stone. The best shadow is given with a calculus composed of oxalate of lime, but a uric acid calculus or one consisting of phosphates gives a much less distinct shadow on the sensitive plate. In the case reported below the fact that the urine was alkaline and contained crystals of triple phosphates renders it almost certain that this dendritic renal calculus was in great part phosphatic, with not improbably a nucleus of uric acid; this may serve to account for the difficulty in obtaining a good skiagram.

A European, aged 40 years, first came under Dr. Currie's care in January, 1901, complaining of pain in the right loin. The patient stated that he had passed mucus and pus in the urine for 15 or 20 years, but that the pain in the loin was not very severe till about three months before, and that he had had it off and on ever since. The urine contained pus, mucus, and albumin, but no blood, and under the microscope crystals of triple phosphates were observed. The urine was alkaline and of specific gravity 1018. The patient was treated first with citrate of potash and then with piperazine, but as after a month's treatment no improvement was noted he was admitted to the Roman Catholic Sanatorium. On Feb. 20th he was radiographed by Mr. A. Allerston, and the plate on being intensified showed faintly but distinctly evidence of a stone in the kidney.

On Feb. 25th Dr. Currie, assisted by Mr. Ward, Dr. Buntine, and Dr. Taylor, cut down on the kidney by the usual lumbar incision, which was afterwards increased by a small vertical incision to give more room, and removed a large branched phosphatic calculus from the pelvis and calices of the kidney. The stone broke on being grasped by the forceps and was extracted in four pieces, which together weighed 200 grains. Hæmorrhage from the renal tissue was free and a drainage-tube and plug of iodoform gauze were placed in the kidney wound. The incisions in the lumbar fascia and muscles were sewn up with a continuous catgut suture and the skin and fat were brought together with interrupted silkworm-gut sutures. The plug, which caused considerable pain, was after 24 hours removed under chloroform, and the tube was gradually shortened. The wound ran an aseptic course and healed by first intention, except where the tube and gauze strip came through, and the patient made an uneventful recovery. On March 29th he still had a urinary fistula, but it was closing rapidly.

Since the above was written the patient was seized with pain in the prostatic urethra followed by an attack of orchitis. He thinks he passed some gravel, but unfortunately the urine supposed to contain it was thrown away without being carefully examined. The orchitis is now subsiding (April 6th) and the fistula is nearly closed.

Remarks by Mr. A. ALLERSTON.—The first time that I tried to take a radiograph of a renal calculus was some three or four years ago, but the apparatus that I was using then only gave a six-inch spark and the experiment failed. During the recent Boer war I have been in charge of the x-ray apparatus belonging to the Natal Volunteer Department. This apparatus, which I used in the present case, gives a 12-inch spark and was manufactured by Apps. I used a Crookes's tube with an osmium anode. The tube was distant from the plate 18 inches; one picture was made and an exposure of 20 minutes was given.

The thorax and upper part of the abdomen were bandaged to restrain the respiratory movements as much as possible and the exposure was intermittent, lasting 30 seconds at a time, with regular intervals of 30 seconds, the patient being directed to hold his breath during the exposure. By this means the blurring of the negative due to the upward and downward movements of the kidney during respiration was obviated. When the plate was developed I could see four distinct shadows which I then thought were four stones, being confident that as the other parts of the plate were clear these shadows must have been caused by some obstruction to the rays. I intensified the plate with mercury which showed up the shadows more distinctly, but I could not manage to get off a print.

A few days afterwards nephro-lithotomy was performed and a stone weighing 200 grains was removed. The stone, which had four branches, was as near as possible of the size of the shadow on the plate. I have had several cases since and I have detected a stone in one.

Medical Societies.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Case.—Double Hernia with Unusual Complications.—Appendicitis with Unusual Complications.—Anomalous Cerebral Cases.—Perforating Dysenteric Ulcer of the Colon.—Empyema.

A MEETING of this society was held on June 18th, Mr. P. E. MIALL being in the chair.

Dr. J. KERR showed a patient operated on for Mastoid Disease.

Mr. W. H. HORROCKS read notes on a case of Double Hernia with Unusual Complications. The patient was a male child, nine and a half months old, who had a double inguinal hernia and also a spina bifida. On the left side the sac was tense and there was no impulse on crying. The skin of the part was red and œdematous. The right hernia was irreducible and the external ring was very large. The bowels were acting. On opening the sac in the left side a few drops of pus escaped and a narrow band, ulcerated at its extremity, was found leading up through the ring to the small intestine; this turned out to be a Meckel's diverticulum. It was removed and the stump inverted. The sac and testicle being infiltrated with pus were removed together and the ring closed with catgut sutures. The wound healed well. A fortnight later the hernia on the right side was operated on. The sac was found to contain the lower part of the cæcum which was free; the posterior and inner aspects of the latter were devoid of peritoneal investment. The testicle was in its natural position. The bowel was gently reduced without interfering with its vascular supply and the peritoneum closed and the ring sutured. The wound healed well.

Dr. C. F. ALTHORP described a case of Appendicitis with Unusual Complications, and showed the vermiform appendix containing a concretion, and also a small ovarian tumour removed from the same patient. The patient was a woman, aged 22 years, who during two years had six attacks of appendicitis. On July 4th, 1900, the appendix, which was found to be fixed in the pelvis and matted by dense adhesions to the right ovary, was removed. The patient recovered from the operation, but was not relieved of her symptoms. A tumour was discovered in the position of the right broad ligament, and the abdomen was opened on May 8th, 1901. A fluid tumour of the size of a small orange was shelled out from between the layers of the broad ligament. The patient made a good recovery and went home well. Dr. Althorp remarked that the right ovarian artery gave a branch to the appendix and also that the lymphatics of the two organs were somewhat intimately connected, and suggested that this connexion might account for the simultaneous occurrence of disease in the right ovary and the appendix.

Mr. R. MERCER read notes on three Anomalous Cerebral Cases. The first case was that of a woman, aged 25 years, who was suddenly (October, 1900) seized with giddiness, headache, and vomiting; these passed off and in two days she was back at work again. She remained at work a fortnight and then suddenly became unconscious and had an epileptiform attack. The fits recurred from every half hour to an hour and did not cease for 24 hours after the onset. She vomited from time to time and passed urine unconsciously. The urine contained a trace of albumin. There was no evidence of muscular weakness. The optic discs

were normal. The pulse was slow and full, from 50 to 60 per minute. The temperature was slightly above normal. The respirations were stertorous. It was three weeks before she regained full consciousness. During this time she objected to the light, and after she began to talk again said that things were upside down. Examination of the field of vision showed left nasal hemianopia. The pupils reacted normally. The patient was now (June, 1901) in excellent health and seemed to have no recollection of her illness previously to the complete return of consciousness. While the patient was in such a grave condition a diagnosis of tumour of the occipital lobe was made, but the subsequent recovery of the patient would seem to negative this. The second case was that of a woman, aged 32 years. She was emaciated, anæmic, and the subject of mitral incompetence and bronchitis. On April 28th she returned home from work feeling dizzy, she vomited frequently, and towards night became unconscious. She resisted attempts at examination and rolled about the bed. Her temperature was 103° F. and her pulse was 120. The tongue was dry and coated. The eyes were kept closed and the limbs were rigid. Urine and fæces were passed involuntarily. She vomited during the next day and remained unconscious for four days. Double optic neuritis was present. There was no albumin or sugar in the urine. There was noticed to be pigmentation of the skin and of the mucous membrane of the mouth. This, combined with the great prostration, would justify a diagnosis of Addison's disease, possibly associated with tuberculous deposit in the brain. The patient had a second attack of coma in which she died. There was no post-mortem examination. The third case was that of a woman, aged 53 years. She complained on July 10th, 1896, of severe pain at the back of the head. She was distressed and her manner was altered. There was no vomiting or optic neuritis. After a week she began to have a staggering gait and moved about with her eyes half shut. Her memory failed and she neglected her dress and person. She became somnolent and took to her bed. Towards the end of August slight weakness of the right hand was observed and optic neuritis was detected. A diagnosis of cerebral tumour in the left arm centre was made. The skull was trephined on Sept. 10th over the left Rolandic area. The brain bulged, but no tumour was found. A trocar was inserted into the lateral ventricle and a quantity of fluid was evacuated. The patient died 12 hours after the operation. At the post-mortem examination a tumour of the size of a walnut was found in the left frontal lobe. The tumour was a glioma and was not multiple. An erroneous diagnosis as to the position of the tumour was founded on the paresis of the right hand. Similar cases had been described by Bruns and Ferrier.

Mr. J. PHILLIPS read notes on a case of Perforating Dysenteric Ulcer of the Colon with complications. A woman, aged 32 years, was admitted to the Bradford Royal Infirmary under the care of Mr. Althorp with sinuses in the right loin. There was a history of influenza twelve months before, followed by "inflammation of bowels" eight months before; the latter illness caused her to keep her bed for two or three months and was followed by right-sided pleurisy. Two months later a lump formed in the right loin which was opened and had discharged ever since. The largest of three sinuses in the loin admitted the finger, which passed up under the diaphragm. The chest was normal. The urine was normal. On April 24th the sinuses were scraped and a quantity of foul granulations removed. The sinus passed upwards and to the right beyond the reach of the finger. Two days later, on removing the packing, egg and milk came from the wound. A duodenal perforation was diagnosed and an anterior gastro-enterostomy was performed, but the patient died from pneumonia two days later. At the necropsy, on removing the colon pus was found burrowing up behind the ascending colon to the subphrenic cavity, which was bounded above by the diaphragm, below and in front by the liver, and on the inner side by the kidney and duodenum; in the latter was an aperture admitting two fingers. The diaphragm was perforated and the lower lobe of the right lung was in a condition of septic pneumonia. The retro-colic pus was due to perforation of two small ulcers just above the cæcum. The case appeared to be one of dysentery with perforation of a colic ulcer, followed by right subphrenic abscess, and eventually by perforation of the abscess through the diaphragm and duodenum.

Dr. BAXTER-TYRIE read notes on some cases of Empyema.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

Exhibition of Specimens.—The Digestive Power of the Peritoneum.—Concealed Accidental Hæmorrhage.—Bacteriological Diagnosis of Puerperal Infection.

A MEETING of this society was held at Leeds on May 17th, Dr. T. B GRIMSDALE, the President, being in the chair.

Dr. LLOYD ROBERTS (Manchester) showed: (1) Multiple Fibro-myoma, the largest growth being intra-ligamentary; the latter was enucleated from the broad ligament and the uterus was removed by supra-vaginal hysterectomy; and (2) a large Fibro-myoma of the Fundus removed by abdominal myomectomy, the uterine bed being sutured with silk.

Mr. WALTER THOMPSON (Leeds) showed: (1) Fibro-myoma Enucleated from the Broad Ligament; and (2) Large Spindle-celled Sarcomatous Uterus weighing 12½ pounds, removed by total abdominal hysterectomy.

Dr. J. BRAITHWAITE (Leeds) showed three Fibroids removed by abdominal myomectomy. In Case 1 the uterine cavity was opened; in Case 2 and Case 3 the cavity did not require opening. Reference was made to two other similar specimens not shown.

Dr. E. O. CROFT (Leeds) showed a Complete recent Tubal Abortion. The abdomen was opened and found to be full of blood in which a perfect ovum of about six weeks' development was discovered. The Fallopian tube was unruptured, but its outer end was dilated into a cavity and the fimbriated opening was gaping widely.

Dr. J. B. HELLIER (Leeds) showed: (1) Hæmatoma (Ectopic Gestation) removed from the Broad Ligament by Colpotomy (chorionic villi were present); (2) Tubo-uterine Gestation removed by Supra-vaginal Hysterectomy; and (3) Uterus removed for Carcinoma of the Cervix from a patient who had passed a Hydatidiform Mole three months previously.

Dr. BRAITHWAITE (Leeds) read a paper on the Digestive Power of the Peritoneum. Cases were described in which the evidence seemed to point conclusively to the possibility of the absorption of extra uterine gestation products, not only in the early stages, but at full term.

Dr. A. E. L. WEAR (Leeds) read a paper on a case of Concealed Accidental Hæmorrhage in which death occurred suddenly from syncope two hours after the uterus had been emptied and all bleeding stopped.

Dr. ARNOLD W. W. LEA (Manchester) read a paper on the Bacteriological Diagnosis of Puerperal Infection: its Value and Limitations. A more accurate knowledge of the bacterial invasion of puerperal infection was essential if further progress was to be made in the treatment. The uterine lochia from cases running a normal course were in the early days of the puerperium free from bacteria, though after the sixth or eighth day organisms were often present. In cases of suspected puerperal infection some of the uterine lochia might be obtained free from contamination with the vaginal discharge. The technique was briefly as follows. The patient was placed on her side and a duck bill speculum was passed; the vagina and cervix were cleansed with cotton wool. A sterilised glass tube was now introduced into the uterus and suction was made by a syringe. The tube was removed, the ends were sealed, and its contents were taken away for examination. 18 cases of puerperal infection were examined bacteriologically by this method. Cultures of the lochia were made on agar and gelatin tubes and in some of the cases anaerobic cultures were also made. The blood was examined in 14 cases. The results of these observations were as follows. Streptococcic infection was found in 10 cases. In six cases the streptococci were in pure culture, in two cases associated with streptococcus pyogenes aureus and albus, and in two cases with anaerobic bacteria. Of these, three recovered and seven ended fatally. Many of these cases were seen in the late stages of the disease and were of a very severe type. In one case vaginal hysterectomy was performed and the patient died from septic peritonitis which was not checked by the free drainage of the pelvis established by the operation. In nine cases of streptococcic infection cultures of the blood were made on agar tubes. In seven the blood was sterile, even in the later stages. In two cases streptococci were found in the blood. Both these patients died. With regard to staphylococcic infection these organisms were found in five cases. In two cases they were associated with streptococci; in two cases the staphylococcus

pyogenes albus and aureus were in pure culture; and in one case they were associated with gas-producing anaerobic bacteria. Three of these cases died and two recovered. Bacterium coli commune was found in one case associated with anaerobic bacteria. As to anaerobic bacteria, these were not investigated in every case, but in five cases they were found to be present. The gas-producing bacillus was found in one case associated with putrefactive changes in the uterus. This case ended fatally. In three cases, although the symptoms pointed to severe puerperal infection, the uterine lochia were found to be sterile. In one the perineal laceration was infected with streptococci but the uterine cavity was sterile. All recovered rapidly. A detailed analysis of these cases was given in the paper. Streptococcic infection was by far the most common form of puerperal infection and presented enormous differences in virulence. In some cases the organisms caused few or no symptoms, remaining limited to the surface of the decidua or placental site. In other cases they rapidly invaded the uterine wall either by the lymphatic vessels—the so-called lymphatic form of septicæmia—or through the veins—the thrombo-phlebitic type; of these, the former appeared to be the most usual course. The extraordinary differences in the results of streptococcic invasion must be attributed to variations (1) in the virulence and type of the organism, and (2) in the resisting power of the individual. Of these factors they did not possess certain knowledge, and as yet bacteriology afforded little help. The gravity of cases must be judged mainly from the clinical symptoms. Diagnosis.—1. If the uterine lochia were sterile, microscopically and to culture, infection was eliminated. The gonococcus, however, might be present; it could be recognised by the microscope and staining. 2. If anaerobic bacteria only could be obtained decomposition was going on in utero. It was a case of sapræmic intoxication. It was possible, however, that at times these anaerobic bacteria might cause severe or even fatal infection. 3. If streptococcus pyogenes was found the case was one of streptococcic infection, but severity of the invasion must be estimated by the clinical signs. 4. If the streptococcus was present with staphylococcus pyogenes aureus or albus the case might be one of "mixed infection," but it was probable that the streptococcus was the infecting organism. 5. If a growth of aerobic bacilli was found there might be bacterium coli commune or certain putrefactive bacteria which caused putrid endometritis. In pure streptococcic infection there was no offensive odour of the lochia, which might be very scanty or in some cases abundant and sanious. The treatment of puerperal infection must be mainly directed by the clinical symptoms, but bacteriological examination was of value. If the uterine lochia were sterile no intra-uterine treatment was required. If the streptococcus was present an attempt should be made to disinfect the uterus by curettage and other local measures. In some cases of streptococcic infection which resisted milder measures hysterectomy might save life, but bacteriology as yet afforded little help in laying down indications for this operation. If bacteria of putrefaction were present exploration of the uterus and removal of decomposing products were essential. The anti-streptococcic serum should be given in cases of streptococcic infection, but a large series of cases bacteriologically examined was essential before a true estimate of the value of this treatment could be made. Serum was given in three cases of proved streptococcic infection. In two cases, though repeated injections were given, no effect was produced and the patients died. In one case the serum had apparently a favourable influence.

EDINBURGH OBSTETRICAL SOCIETY.

Exhibition of Specimens.—Eclampsia and the Thyroid Gland.

A MEETING of this society was held on June 12th, Dr. R. MILNE MURRAY, the President, being in the chair.

The following specimens were shown:—

Dr. D. BERRY HART: 1. A Fibroid Tumour removed by Pan-hysterectomy for symptoms due to pressure and metrorrhagia. 2. An Incomplete Tubal Abortion in which the gestation sac, measuring two inches by one and a half inches, was partly adherent to the fimbriated portion of the tube and half projected beyond the tubal end. The amniotic sac was well seen and the sac wall, averaging from one-half to seven-eighths of an inch in thickness, showed a good deal of blood extravasation. 3. A Parovarian Tumour with markedly twisted pedicle. 4. A Ruptured Ovarian Cyst from a girl, aged 14 years. 5. A large Papillomatous Cyst. 6. An Ovarian Tumour with Myxomatous and Cystic Parts, the latter lined with columnar epithelium.

Dr. R. C. BUIST (Dundee): A Uterus removed for Deciduoma Malignum after Hydatid Mole, with Microscopical Section.

Dr. J. HAIG FERGUSON: A Myomatous Uterus removed by Abdominal Hysterectomy.

Professor A. R. SIMPSON: 1. Labia Minora and Clitoris removed for Epithelioma from a patient, aged 32 years. 2. A bronze copy of the Porro Medal.

Dr. S. MACVIE: Sketches of Varicose Veins in a woman five months pregnant.

Dr. H. OLIPHANT NICHOLSON read a paper on Eclampsia and the Thyroid Gland. The blood during pregnancy increased in volume with a deficiency of the solid constituents of the serum leading to a lower specific gravity. The red blood corpuscles and albumin were relatively diminished while the number of white corpuscles was increased. This was one of the first blood changes which followed thyroidectomy. Other changes occurred in the blood during pregnancy: there was always a toxæmia as a result of fœtal metabolism, and as the fœtus grew the maternal blood would suffer to a greater extent as the amount of fœtal excretion would be larger. Towards the end of pregnancy the margin of safety to the mother was greatly contracted. Unsuitable diet, chiefly of the proteid class, or a sudden chill, or a variety of other circumstances might be sufficient to derange the mechanism and precipitate the symptoms of eclampsia. In pregnancy also there was a hypertrophy of the cardiac muscle and of the muscular coat of the blood-vessels, giving rise to increased vascular tension. It had been suggested that these conditions were dependent upon the toxic condition of the blood. The toxic theory of eclampsia was now the one generally held by most obstetricians and in this connexion the following points might be mentioned. 1. That in every case of pregnancy more or less toxæmia existed and that the blood intoxication became more profound towards the end of gestation. 2. That although the eclamptic state was due to a toxæmia, the toxic agent which excited the convulsions was probably not always the same—there seemed to be different types of the disease. 3. That the toxins might be produced in greater abundance in some cases (twin pregnancies) and that they were generally more virulent in primiparæ than in multiparæ. In the primipara mechanical pressure on the renal vessels might possibly come more into play, while in the multipara a certain degree of immunity against the toxin might have been acquired from previous pregnancies (Allbutt). 4. That in spite of very grave toxæmia no alarming symptoms would occur so long as elimination by the kidneys was sufficiently active. Of the nature of the toxins they knew nothing and there was no clear evidence to show where they were formed. There was some reason to believe that the fœtus played an important part in their production, because after its death the various symptoms usually abated. If the fœtus contributed a part of the poison, then it was unlikely that they could exert any control over its formation, so their efforts in the avoidance of eclampsia might be more usefully directed towards the maintenance of efficient renal function. A checking of elimination by the kidney, more or less suddenly produced, would result in the development of all the symptoms of eclampsia. Therefore the whole question of treatment, prophylactic and otherwise, turned upon elucidating the cause of this renal arrest. What was it that, during the course of the normal elimination of the toxins, suddenly threw the kidney out of gear? Lange noted that out of 25 pregnancies in which the usual hypertrophy of the thyroid did not occur albuminuria occurred in 20. Large doses of thyroidin were administered to pregnant women in whom the physiological enlargement of the gland had occurred and a marked diminution in the size of the gland resulted. One might therefore conclude that the normal hypertrophy of the thyroid gland in pregnancy was the result of a demand for extra secretion to meet the wants of increased metabolism. With a continuous supply of artificial secretion the gland was relieved of the additional strain and resumed its former size. Hallion observed similar effects, and Murray had on this hypothesis used thyroid extract in certain cases of goitre with

marked success. Lange also gave thyroidin to a case where there was a pathological enlargement of the thyroid gland during pregnancy. A diminution in size again resulted. He stated that the exhibition of large doses of thyroidin to the mother were not contra-indicated and that no atrophying effects on the fœtus were noticed. In patients suffering from the nephritis of pregnancy thyroidin had distinct diuretic effects. Dr. Nicholson then gave the history of a woman pregnant for the third time; she had suffered from fits at her two previous labours. At the sixth month her urine was normal; a month afterwards it was albuminous and she complained of frontal headache, giddiness, dimness of vision, and her whole body was œdematous and puffy. She was put on a milk diet, confined to bed, and given a diuretic mixture. In the eighth month she had a fit which was treated with bromidia and chloral. The urine was scanty and solid with albumin on boiling. Sphygmographic tracings were taken of both radial arteries and these showed a contracted vessel and a pulse of high tension. The next day thyroid tabloids were begun, at first two and afterwards three a day. In three weeks she was able to engage in household work, the urine was normal in quantity and contained no albumin, and her other symptoms had almost disappeared. 12 days later she gave birth to a full-sized living child; the labour was accomplished without any untoward symptom and her recovery was uneventful. The albuminuria did not return. The œdema in this case was general and not of the kind seen in ordinary dropsy; it was of a much more solid character and only pitted on firm and prolonged pressure. Its character suggested that it was really of a myxœdematous nature. The albuminuria was probably of toxic origin. This might only lead to increased arterial tension, but in greater quantity it would, in addition, produce albuminuria. If the quantity of urine became diminished then the pre-eclamptic symptoms of headache, dimness of vision, &c., would appear; and the next stage was eclampsia. Free diuresis might prevent the development of symptoms. Diminution of urine at the end of pregnancy might be a most important danger signal. Albuminuria and œdema were not always present. High arterial tension, unless accompanied with free diuresis, should be taken as a warning of possible trouble. Symptoms such as these might be and were produced by defective action of the thyroid gland. Iodothyrin increased the excretion of urea and also the metabolic processes of the body. Thyroid extract had a distinct diuretic effect in diseases of the kidney, although apparently negative in healthy persons. It also lowered the blood-pressure and dilated the arteries. The internal secretion of the suprarenal bodies acted in an antagonistic manner, and one might assume that the balance between the two resulted in a certain arterial tone. If the thyroid secretion should become diminished the suprarenal influence on the arterioles, including those of the kidney, would be very profound. As regards treatment in the early stages, when there were increased tension of pulse and diminution of urine thyroid extract should be given twice or thrice daily, and proteid foods should be entirely forbidden at first. Iodide of potassium in small doses had been regarded as a specific for puerperal albuminuria; the iodine had been proved to be picked out by the thyroid gland and might be elaborated into the active iodothyrin. It had been suggested to give infusions with iodide of potassium instead of ordinary saline infusions in cases of eclampsia. If convulsions had already occurred then the use of thyroidin by the mouth would not be rapid enough. Liquor thyroidii, or, better still, fresh thyroid juice, in from 10 to 15 minims, should be given by hypodermic injection and repeated every hour or two if not followed by signs of improvement. For the immediate treatment of the convulsion morphia was the best remedy. It inhibited the various processes of metabolism, and this gave opportunity to the thyroid gland to recover itself. The dose should be large—not less than half a grain for the first injection. Eclamptic patients resisted the dangerous effects of the drug in a remarkable way. One grain and one and a half grains had been employed with uniformly good results. Morphia relieved the spasm of the arteries and diminished blood-pressure. Jardine and others had extolled the use of saline infusions. Probably one of the early effects was to relax arterial spasm and then diuresis would follow.—The PRESIDENT, Dr. C. E. UNDERHILL, Dr. BERRY HART, Dr. WILLIAM RUSSELL, Dr. F. W. N. HAULTAIN, Dr. J. W. BALLANTYNE, Dr. MACVIE, Dr. JAMES RITCHIE, and Dr. WILLIAM FORDYCE discussed the paper, and Dr. NICHOLSON replied.

PLAISTOW AND CANNING TOWN MEDICAL SOCIETY.—A meeting of this society was held at the Public Hall, Barking-road, E., on June 6th, Dr. W. C. Taylor being in the chair, and there was a good attendance.—After a short discussion of some medico-ethical subjects, having a purely local interest, Mr. Percy Rose showed a case of Lichen Planus in a young man and a case of Non-parasitic Sycosis in a middle-aged man.—Dr. J. Biernacki read a paper on the Diagnosis and Treatment of Typhoid Fever, a subject of special interest to the meeting owing to the epidemic prevailing in the district. He laid stress on the fact that, apart from Widal's reaction—a test not always easily available in private practice—there was no royal road to the diagnosis of the disease. In those cases in which continued fever was the only prominent symptom the special difficulty of diagnosis was dwelt upon. The symptoms having diagnostic significance were then considered *seriatim* and their relative values were weighed. With regard to the temperature a rapid rise to about the maximum was stated to be the rule. As regards enlargement of the spleen it was pointed out that the organ was in some cases almost diffluent and it offered very slight resistance to the hand on palpation. Diarrhœa had become of recent years comparatively rare, this characteristic almost amounting to a change in type. Dealing with the question of treatment Dr. Biernacki strongly advocated the routine use of Yeo's chlorine solution as against other intestinal antiseptics, including salol. For severe hæmorrhage, a full dose of morphia given hypodermically was recommended, and for oozing frequently-repeated doses of pure turpentine. He was not in favour of a liberal diet, as now often prescribed. Generally speaking, he used milk lightly skimmed, with an ounce of lactose added to each pint. Peptonised milk given for sickness was very apt to cause diarrhœa, and the same remark applied to strychnine—the most reliable drug in heart failure. For diarrhœa lead and opium pill was stated to be a generally reliable remedy. In the later stage of heart failure alcohol by the mouth should be given in addition to strychnine hypodermically. Digitalis was regarded as at the best of doubtful value and as being often dangerous, especially when the urine was scanty. In cases with high temperature the usual hydropathic methods were advocated, with the continuous pack in lieu of the bath in private practice. Quinine, it was maintained, should be reserved for critically high temperatures, so as to prevent a loss of effect owing to partial toleration. Phenacetin was very valuable in cases of insomnia with restlessness, but sulphonal was dangerous, especially when the typhoid condition was marked.—A brief discussion followed, and the proceedings terminated with a hearty vote of thanks to Dr. Biernacki.

LARYNGOLOGICAL SOCIETY OF LONDON.—A meeting of this society was held on June 7th, Dr. Cresswell Baber, the President, being in the chair.—Dr. de Havilland Hall showed a case of Laryngeal Ulceration which was thought to be due to tubercle engrafted on old syphilis.—Dr. StClair Thomson showed a case of a Malignant Growth of the Larynx.—Dr. StClair Thomson showed one case and Dr. H. Tilley three cases of Frontal Sinus Suppuration cured by external operation.—Dr. Herbert Tilley showed two cases in which Thyrotomy had been performed some years previously for malignant disease; no recurrence had taken place in either case.—Dr. Furniss Potter showed a case of Infiltration of the Left Vocal Cord, probably tuberculous in nature.—Dr. McKenzie Johnston showed a specimen of Sarcoma of the Tonsil which had been removed by an extensive external operation with complete success. He also showed a specimen of Adenoid Growth in which there was a Large Cyst containing Cheesy Material.—Dr. J. Donelan showed a drawing of an Aortic Aneurysm, the only symptom of which had been paralysis of the left vocal cord.—Dr. FitzGerald Powell showed a case of Separation of the Upper Lateral Cartilages of the Nose secondary to Injury and Abscess.—Mr. Walter Spencer showed a case of Ulceration of the Septum.—Mr. A. Hudson exhibited an Apparatus for Vibratory Massage.—Sir Felix Semon showed three cases of Bilateral Abductor Paralysis in Tabes Dorsalis. In one case the inspiratory inward movements of the cords had ceased after tracheotomy, which seemed to add weight to the view that such movements were mechanical in origin.

NEUROLOGICAL SOCIETY.—This society met on June 22nd at Manchester on the invitation of the Manchester members. Professor J. Dreschfeld acted as

President.—Specimens were shown by Dr. Bruce, Dr. Judson Bury, Professor Delépine, Professor Dreschfeld, Dr. Moore, Dr. Mott, Dr. Orr, Dr. E. S. Reynolds, Professor Sherrington, Professor Stirling, Dr. Trevelyan, Professor A. H. Young, Dr. Warrington, and Dr. Williamson, and Clinical Cases were shown by Dr. Ashby, Dr. Bury, Professor Dreschfeld, Dr. N. C. Haring, Dr. Harris, Dr. Dixon Mann, Dr. Reynolds, and Dr. Williamson.—In the afternoon the society was entertained at the Royal Asylum, Cheadle, at the invitation of Dr. and Mrs. Mould and the committee of management. In the evening the members of the society dined at the Queen's Hotel.

Reviews and Notices of Books.

Chloroform: a Manual for Students and Practitioners. By EDWARD LAWRIE, M.B. Edin., M.R.C.S. Eng., Lieutenant-Colonel I.M.S., Residency Surgeon, Hyderabad. London: J. & A. Churchill. 1901. Pp. 120. Diagrams. 5*s.* net.

THE plan upon which this book is constructed is an excellent one. An exposition of the physiological action of chloroform is first given, and upon the facts therein stated principles are enunciated which should, in the writer's view, control the administration of chloroform.

In the introduction Lieutenant-Colonel Lawrie gives a brief *résumé* of the history of the Hyderabad Commission, but omits adequate reference to the large amount of physiological work done by various workers in elucidation of the action of chloroform. Practically his teaching is summed up in these quotations: "The action of chloroform is to lower the blood-pressure with first unconsciousness, then anæsthesia, then stoppage of the respiration, and then stoppage of the heart" (p. 23). "Other things being equal, the more concentrated the chloroform the more rapid the fall, and conversely." "When chloroform is sent to the heart alone it produces no effect: it has no direct action on the heart" (p. 24). "When it is sent to the brain alone its usual action is exhibited—viz., lowering of blood-pressure, with first insensibility, then anæsthesia, then stoppage of the respiration, and then stoppage of the heart." The vaso-motor portion of the fall of the blood-pressure under chloroform he considers to be entirely free from danger. The fall of blood-pressure he regards as being first due to vaso-motor causes and then to "weakening of the heart" through narcosis of the respiratory centre. This second factor, he admits, "is dangerous, and if chloroform is pushed as far as this stage there comes a time—not easy to define because of the impossibility in practice of drawing a distinct line between the termination of the vaso-motor and the commencement of the cardiac falls—when the blood-pressure and respiration will no longer be restored spontaneously, although the heart may continue to beat after the breathing has stopped" (p. 28). It must, however, be remembered that any distinction drawn between the fall of blood-pressure due to vaso-motor action and to cardiac weakness and failure is an arbitrary one and is not recognised by physiologists. Even the diagrams of tracings given in the book appear to us to support the contention that a continuous fall occurs due to the gradual narcotisation of the medullary centres and shown by the vaso-motor fall. That any lowering of the blood-pressure is harmless is, we think, open to question. The danger is seen more and more as the blood-pressure lessens and this Lieutenant-Colonel Lawrie admits, only he declines to regard its origin as vaso-motorial. Luckily, the discrepancies, grave as they are, between the author's physiological excursions and those of the physiologists do not affect the practical side of his book. He is a severe critic on others and will probably be prepared to meet with equally strenuous criticism from those physiologists whose work he impugns and upon whose treatment of himself he animadverts.

Leaving the purely controversial passages of the book we pass to what constitutes the best part of a most valuable exposition of the practical side of the subject. In Part I. a really admirable account is given of the physiological action of chloroform. In it we find plainly stated the dual danger arising from the use of that anæsthetic—viz., that due to the fall of blood-pressure and that incident to interference with respiration. On p. 32 the weakening effect upon the heart brought about by struggling and breath-holding is insisted upon and on p. 63 the same subject is looked at from the practical side, and respiratory embarrassment is shown to be the case of heart failure in such conditions as diphtheria, empyema, chronic alcoholism, and renal disease. Throughout Lieutenant-Colonel Lawrie's practical rules one is struck again and again by the fact that his clinical acumen often leads him to warn against some of the perils which are minimised when he treats his subject as a controversialist.

The directions in Part II., which applies physiology to practice, are very good and deserve the closest study. The dangers of over-dosage leading to excessive fall of blood-pressure are well put. To many it will appear unnecessary at the present day to insist upon the pulse being neglected as a guide during chloroform-giving, while the adoption of the routine use of morphine injection during chloroform narcosis is one to which many practical surgeons will take exception. Although we are told that the rules given practically constitute Syme's method we confess that it is difficult to recognise in Lieutenant-Colonel Lawrie's precise rules, his measured quantities, and repeated reference to the dangers of falling blood-pressure, the rough-and-ready method which was in vogue in the time of Syme. The plan Lieutenant-Colonel Lawrie recommends in the instance of children contravenes his principles in many important ways and is, we submit, dangerous. What is, however, beyond all praise is the insistence in his pages upon the absolute necessity for the chloroformist to give his undivided attention to his task. To this and to the rule that irregular breathing, struggling, and holding of the breath are danger signals and that no chloroform must be given until they have ceased and the *colour of the face* is normal, we venture to think Lieutenant-Colonel Lawrie owes much of his success as a chloroformist. His rules with regard to chloroform in midwifery are those usually adopted. It has been the custom, however, departing from the teaching of Snow, to regard *partial* narcosis as unsafe for even short operations and especially so in the case of dentistry. Lieutenant-Colonel Lawrie does not follow this custom. He believes in partial anæsthesia, he does not admit any danger of shock to the partially chloroformed patient, and he regards chloroform as a better anæsthetic for dental operations than nitrous oxide gas. With the reservations indicated we have no hesitation in commending Lieutenant-Colonel Lawrie's book on chloroform as one of the best we have seen and as a most admirable guide to the use of that anæsthetic. If we cannot admit all the author's theory we can in most cases heartily accept his practice.

Clinical Examination of the Urine and Urinary Diagnosis. By J. BERGEN OGDEN, M.D., Instructor in Chemistry, Harvard University Medical School. London and Philadelphia: W. B. Saunders and Co. 1900. Illustrated. Pp. 416. Price 12*s.* 6*d.*

THIS volume is intended as a clinical guide for the use of practitioners and students of medicine and surgery, and the aim of the author has been to present in as concise a manner as possible the chemistry of the urine and its relation to physiological processes, the most approved methods of analysis, both qualitative and quantitative, and the diagnosis of diseases and disturbances of the kidneys and urinary passages. We may congratulate the author on the success of

his endeavours and an excellent manual on the examination of the urine for clinical purposes is the result.

The work is divided into two parts. In the first the chemical and microscopic methods of examination are described, and numerous illustrations, many of which are original, have been introduced, thus greatly adding to the value of the letterpress. The clinical conclusions that may be arrived at are clearly and concisely stated and all the matters dealt with are fully up-to-date.

In the second part of the book especial attention has been directed to diagnosis, the various pathological conditions of the kidney are brought under review, and the differential diagnosis of disturbances and diseases of the kidneys and urinary passages is discussed, whether those diseases are local or general, medical or surgical. A brief enumeration of the prominent clinical symptoms of each disease is given, and, finally, there is a useful chapter on the Urine in Diseases outside the Urinary Tract. An account is given of the characters of the urine in such diseases as enteric fever, pneumonia, and acute yellow atrophy of the liver. These phenomena are found described in most text-books on medicine under the various diseases in which they occur, but it is a matter of considerable convenience for reference to have them collected together as is done in Dr. Ogden's book.

We consider this manual to have been well compiled and the author's own experience, so clearly stated, renders the volume a useful one both for study and reference.

Atlas und Grundriss der Ohrenheilkunde. Untermitwirkung von Professor A. POLITZER in Wien. Herausgegeben von Dr. GUSTAV BRÜHL, Ohrenartz in Berlin. Mit 244 farbingen Abbildungen auf 39 Tafeln nach Original Quarellen von Maler G. HAMMERSCHMIDT und 99 Text-Abbildungen. (*Atlas and Essentials of Diseases of the Ear.* Under the supervision of Professor A. POLITZER of Vienna. Edited by Dr. GUSTAV BRÜHL, Aurist in Berlin. With 244 Coloured Drawings in 39 Plates from original dissections, by G. HAMMERSCHMIDT, Artist, and 99 Engravings in the text.) München: J. F. Lehmanns. 1901. Pp. 284. Price 12 marks.

DR. BRÜHL has given us an extremely beautiful atlas which embraces both the normal and pathological states of the ear and temporal bone. In his work he had the advantage of Professor Politzer's advice and assistance, and that alone is a sure guarantee of the quality of the book; it amply supplied that want of personal experience that Dr. Brühl's age would otherwise have entailed.

The illustrations of the normal bone are excellent and in Table 8 are drawings of two temporals, bones showing the position of the labyrinth; these bones had been decalcified and the labyrinth filled with metallic mercury, a method which has been applied also by Dr. Brühl to the accessory sinuses of the nose and depicted in Table 12, which will be a most useful plate for careful study.

The parts exposed in operations for intracranial lesions secondary to suppurative disease of the middle-ear are shown in Table 12 both before and after removal of the dura mater and will be a boon to those who for the first time find themselves called upon to deal with a case necessitating opening the skull in the neighbourhood of the ear.

Tables 38 and 39 consist of 48 drawings of morbid conditions of the tympanic membrane which have been selected with great skill and judgment; from them the practitioner will derive a knowledge hard to obtain by other means and will also have a handy and reliable guide to assist him in recognising and classifying what he sees by means of the speculum.

The plates showing microscopical preparations of the normal histology and pathology are very good, but if anything show conditions too rare to be of much service to any save the aural pathologist, but to those unable themselves to possess the actual preparations they will render clear the minute structure of the parts.

The drawings are taken from specimens in possession of Professor Politzer and of Dr. Brühl and the source indicated respectively by (P.) and (B.). The whole of Plates 38 and 39 are by Dr. Brühl, but the remainder are drawn by an artist, Herr G. Hammerschmidt.

Dr. Brühl devotes 62 pages to the Anatomy and Physiology of the Ear and illustrates it with some particularly lucid diagrams, all of which will render the subject clearer to the student. In this section a diagram of the cochlea deserves attention; it shows the parts of the organ of Corti with the musical notes with which they are connected according to Helmholtz, and from which the observer is able to deduct the particular part in which the lesion lies, though it is not, unfortunately, any aid in treating deafness.

In the chapter on Examination of Cases the most minute instructions are given—in fact, the great attention paid to this subject in German text-books is worthy of imitation. The general present state is to be noted, hints are afforded as to what is noteworthy and to what each sign may point, thus, icterus suggests pyæmia, and facial palsy caries. In the text Dr. Brühl indulges freely in abbreviations which naturally do not assist the English reader unless his knowledge of German is fairly good. In the use of the Siegle's speculum Dr. Brühl indicates the information to be derived and how to obtain it. Dr. Brühl naturally follows in Professor Politzer's footsteps as to the various indications for the use of Politzer's method and of the catheter to the middle-ear, as he, indeed, follows his teacher throughout, and nowhere is it more marked than in his descriptions of intra-tympanic operations.

As an illustrated text-book of the essentials of aural therapeutics Dr. Brühl's work is most useful and practical; it is a pleasant book to refer to and will be of considerable value to teachers no less than to students; it surpasses any previous work of the kind in its illustrations, is compact and well got up, and reflects great credit of all concerned in its production.

LIBRARY TABLE.

The Child: His Nature and Nurture. By W. B. DRUMMOND, B.M., C.M., M.R.C.P. Edin. Temple Primer Series. London: J. M. Dent. 1900. Pp. 146. Price 1*s.*—This recent addition to the Temple primers is intended as an introduction to the study of the physical and mental development of the child. Though quite elementary in scope it is thoroughly practical in its aims and should be of the greatest assistance to teachers and others who have the charge of young children. Dr. Drummond writes in an elegant style, and considering the small space at his disposal he has managed to condense an enormous amount of information within the narrow limits of 146 pages without at any time attempting a mere abstract or epitome of the subject. For many years there has been developing in our midst a new conception of education which looks to the individual to be educated and not to the knowledge to be crammed into the learner. To Pestalozzi and to Froebel is chiefly due the crystallising of the method in what is now known as the kindergarten system, and this method in all its latest developments forms the text of Dr. Drummond's observations. He explains very fully how the senses, the emotions, the intellect, and the will may be directed into the best paths and how bad habits may be prevented and the physical and moral welfare of the growing child best encouraged. Child study is a comparatively new branch of education and in this country has hardly yet reached the stage of development to which it has attained in Germany and America as regards the intellectual

side and in Sweden as regards the physical side. This little work, which is within the reach of all who care to study the subject, should act as a real and beneficial stimulus to this most important branch of education.

The Extermination of Love. By E. GERARD. Edinburgh and London: William Blackwood and Sons. 1901. Pp. 322. Price 6*s.*—This book is described as a fragmentary study in erotics and the description fits it very well. The hero is a visionary scientific enthusiast who marries a girl of about 17 years, and who would have entirely ignored his marital duties on the bridal night had he not been primed with champagne, a beverage which he is made to partake of under the impression that it was water. Owing either to the champagne or to the young mother having been nourished after Professor "Henker's" theories, the offspring turned out a girl instead of a boy, and recalled in her appearance the various fruits and vegetables upon which her mother had been fed. The end of the book is that the hero, Dr. Peterstorff, gives a lecture at a medical congress upon a serum by which he hopes to exterminate love. At the ball which follows the lecture he becomes involved in a duel and is wounded. He is trephined and a cerebral tumour is discovered which is removed. He recovers both his health and his senses at the end of March, with the result that in the spring of the following year his wife has twins, "rosy, dark-eyed cherubs, true children of love." This is the story, and a very silly one it is.

B. Bradshaw's Dictionary of Bathing-places, &c. London: Kegan Paul, Trench, Trübner, and Co., Limited. 1900. Pp. 414. Price 3*s.* 6*d.*—This useful little publication comprises a vast amount of information upon baths, mineral waters, "air cures," and the like. So far as we can test it the information seems trustworthy. The "suggestions" for travellers are very good, and we are pleased to see recognition of the fact that a natural mineral water is superior from a therapeutic point of view to an artificially prepared one, even though the latter may be chemically indistinguishable from the former. We may again call the editor's attention to the fact that jaundice is not a disease.

Burdett's Official Nursing Directory, 1901. By Sir HENRY BURDETT, K.C.B. London: The Scientific Press, Limited. Pp. 420. Price 3*s.*—This Directory is, as is explained in the preface, "official" only in the sense "that the information given in it relating to nurses is either derived from official sources or has been verified by competent authorities." It is, however, a useful book, and besides the directory of nurses it contains a valuable abstract of laws affecting the nursing profession and a list of training schools, together with a table of provident funds, examining bodies, and associations for the benefit of nurses.

Beauty Adorned. By Mrs. HUMPHRY. London: T. Fisher Unwin. 1901. Pp. 316. Price 1*s.*—Mrs. Humphry, who is the "Madge" so well known to readers of *Truth*, gives some very excellent advice in this little book about beauty and the matters which go to enhance and to preserve it. Her advice as to personal cleanliness, washing, and taking care of the hair: upon dress, food, and drink is very good, and we are glad to see that she gives a very decided warning as to the use of celluloid combs (p. 25). To one passage in her book we must take exception. It appears on p. 59 and has reference to the choice of spectacles. "The choice of spectacles should always be made under the advice of an experienced optician. ..... He will also be able to advise his customers when a visit to an oculist is imperatively necessary." He might be able to do so, but we very much doubt whether he would. But it goes without saying that the choice of at any rate the first pair of spectacles should always be made upon the advice of a duly qualified medical man who has studied diseases of the eye and the various errors of refraction. Mrs. Humphry also recommends (p. 61) that when anything gets into the eye "it is advisable to go at once to a chemist or a doctor." With this advice, so far as concerns a chemist, we cannot agree. The eye is far too delicate and valuable an organ to be meddled with by amateur practitioners, whether opticians or chemists. Apart from these passages, however, Mrs. Humphry's advice is sound.

Cerebral Science: Studies in Anatomical Psychology. A Book for Artists, Physicians, and Teachers. By WALLACE WOOD, M.D., Professor of History of Art in the New York University. London: Baillière, Tindall, and Cox. 1901. Pp. 128. Price 3*s.* 6*d.* net.—Dr. Wallace Wood's effusions, if somewhat incomprehensible, are amusing. The last work of his which we saw was a little pamphlet on Love which is situated in the anterior metopic lobule.[1] We do not quite understand what the work now before us is about, but according to Dr. Wood's preface, "out of the theoretical science of comparative psychology, founded upon comparison of the brain gyres, will grow the practical science ethology." The psychology of the lamb is thus described: "The sheep is a blockhead, doubtless, and the tiger has a fine intellect—that is to say, a fine intellect posterior—that is, a sanguinary intellect; but in the blockhead of the lamb is a divine spark, a magic light by which he leads the procession forwards." Turn we now to the cat. "What qualities have made the Miow?" We should explain that Miow is Egyptian for cat. Dr. Wood goes on: "Sensitivity, sharp ears, sharp eyes, sharp nose, sharp tongue, sharp feelers, sharp tentacles, *akinoia* at its height. ..... Vigilance is a fine quality. The panther wakes while others sleep. The early bird catches the worm—foolish worm! foolish bird! ..... Heat is a fine property. The Miow has heat. ..... The griffers are nocturnes." We are obliged to Dr. Wood, but what *does* he mean?

JOURNALS AND MAGAZINES.

THE *Practitioner* this month somewhat belies its title. The number is almost entirely engrossed with the subject of hospital management, a topic with regard to which the average practitioner, once his student days are over, can spare but little time. To such, however, as can busy themselves with the internal affairs of hospitals the *Practitioner* provides a series of articles dealing with the matter from all the chief points of view. The views of a hospital physician are given by Dr. Isambard Owen and Dr. A. E. Sansom and others. Mr. Charles Burt and Mr. John Murray represent lay committee-men, and the Rev. Henry Wace also writes on the subject. A few pages on Diseases of the Digestive Organs by Dr. H. D. Rolleston represent the technical matter of this number. Air-swallowing or aërophagy and black vomiting in appendicitis are among the subjects that Dr. Rolleston deals with.

Medical Magazine.—The early recognition of pulmonary tuberculosis is an important subject well considered by Dr. J. E. Squire in the June number. Dr. Squire points out how easy it may be to miss vague indications given by the earliest stages of pulmonary tuberculosis. With no physical signs to direct his suspicions the practitioner is apt to miss the meaning of anæmia, gastric disturbances or irregular temperatures really indicating the onset of phthisis. The extent to which confirmatory evidence may be obtained from tuberculin, skiagraphy, or bacteriological examinations of sputum is also discussed. Dr. F. Parkes Weber provides an interesting article on Fatness, Overweight, and Life Assurance, and Mr. J. Foster Palmer's valedictory address to the Chelsea Clinical Society is a contribution that gives some pleasant enough learned levity. The late Sir B. W. Richardson and his work are the theme of an enthusiastic,

[1] THE LANCET, August 25th, 1900, p. 597.

if somewhat ill-proportioned, article. The toxic origin of neurasthenia and melancholia is the most important matter alluded to in the annotations.

Mercy and Truth.—In the June number there is an illustrated article of several pages in length entitled "Work among Women in Yezd," a Persian city, the writers being Mrs. Malcolm, M.B., Miss Mary Bird, and Miss Brighty.

New Inventions.

A MODIFIED PLASTER SPLINT.

THE splint is made of two pieces of ordinary thin flannel and is stiffened by pieces of flannel soaked in plaster or, better still, by strips of plaster bandage, soaked and laid evenly between the layers of the flannel. The larger piece of flannel is wide enough to make the splint sufficiently long and long enough to encircle the limb and to allow each end to be turned back at least half way round the limb again. The second piece of flannel is of the same width as the first but only long enough to extend halfway round the limb. These two pieces are sewn together by the middle along the whole width (see Fig. 1 at o). Now the seam joining the two pieces

FIG. 1.

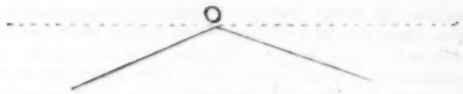


FIG. 2.

The dotted line shows the first piece of flannel; the unbroken line shows the second piece.

is tucked in along the whole width and sewn along the line *b* (see Fig. 2). This fold is kept towards the limb and is placed where the hinge of the splint is wanted. The fold in practice is less than a quarter of an inch deep and is not felt by the patient, especially as no plaster is laid over it. If it is made deep the hinge of the splint will be too free. The fold should be exactly in the middle of the front or side of the limb, as the case may be, all the way down. The ends of the larger piece of flannel should then be carried over and tacked together exactly opposite the hinge, the flannel being pulled fairly tight over the limb and, if necessary, V-pieces cut out to make it fit neatly. There are then four flaps of flannel, two of which will be turned over the front of the limb and two over the back. All is then ready for the plaster. The strips should be well soaked and laid longitudinally on the flannel sheathing the limb, care being taken that the strips extend well into the grooves formed by the junction of the flaps with the sheath. When enough is laid on for the purpose the flaps should be turned back over the plaster and fixed with a bandage. In practice it is found that the splint is more comfortable if the plaster strips are an inch or so short at each end, so that the sheath and flaps are somewhat longer than the plaster stiffening. To remove the splint take off the bandages and cut the tacking cotton along the groove on either side. The splint will open altogether in front but at the back it will only open down to the hinge.

Bath. J. R. BENSON, F.R.C.S. Eng.

THE ANATOMICAL TONSILLOTOME.

ONE frequently sees even expert operators return to the charge and have to make a second cut with the tonsillotome before all the enlargement is satisfactorily removed. The explanation of this is, I think, to be found in the shape of the opening in the instrument not being of such a nature as to correspond anatomically with the form of the tonsil. The tonsil is elongated vertically, even when enlarged, and unless the guillotine opening is of such a shape as to include the whole of the enlargement there is always sure to be more or

less left behind; especially is the lower point of the tonsil unremoved and this continues to cause irritation and cough. This is obviated by the use of the "anatomical" tonsillotome. Messrs. Beauchamp and Co., surgical instrument makers, West Smithfield, London, E.C., have made the instrument for me.

Welbeck-street, W. WM. STUART-LOW, F.R.C.S. Eng.

JEQUIRITOL.

WE have received a box containing samples of jequiritol (Merck) from Messrs. Merck, prepared according to the directions of Dr. Römer of Würzburg. It will be remembered that some years ago an infusion of the seeds of the *Abrus precatorius*, which are small, subspherical, and red, with a black spot at one end, was strongly recommended by M. Wecker of Paris as an efficient agent in the cure of purulent ophthalmia of adults and of the granulations that are so common in that affection. Its curative effects were stated to be due to the circumstance that the infusion excited violent inflammation of a different kind from that causing or accompanying purulent ophthalmia, which was accordingly arrested whilst the granulations underwent absorption. The experience of many surgeons, however, rendered it certain that the inflammation excited by jequiritol infusion was not itself unattended by danger and when cases of deep ulceration of the cornea or even of sloughing of that membrane were met with it was felt by most ophthalmic surgeons that it was too dangerous a remedy to be prescribed until some means were found to regulate its action. The experiments of Ehrlich in 1850 led him to the conclusion that animals could be rendered immune to the action of abrin and that they then generated in their systems a specific antitoxin. This agent, however, could not be preserved and quickly lost its activity. The pharmaceutical firm of Merck, however, continued Ehrlich's researches and have produced, and have been able to preserve, a special antitoxin which, introduced into the blood, enables a dog or rabbit to resist very powerful doses of jequiritol applied to the eye—doses that would certainly destroy the eye in animals not rendered immune. The jequiritol serum obtained by Messrs. Merck has been experimented with by Dr. Römer who has found that in the first place it possesses, when locally applied, a distinctly marked curative action on inflamed conjunctiva whilst it is itself innocuous. Experiments made by Dr. Römer, in conjunction with Dr. Hess, have satisfied both observers that it is the best means for the removal of nebulæ of the cornea. It accomplishes this by first causing serous transudation into the substance of the cornea, and then as the fluid is absorbed the nebula disappears. By increasing the strength of the doses of jequiritol, which can be accomplished with great exactness, the precise degree of inflammation can be determined. The tubes are numbered from one to four, and in cases requiring this form of treatment one or several drops of the tube marked 1 are introduced into the conjunctival sac; if in the course of 24 hours no inflammation follows a drop or two of the tube marked 2 are instilled, and so on until the desired degree of inflammation with delicate croupous membrane and œdema of the lids is excited. In the same box are contained some small capillary tubes containing jequiritol serum and in the event of the inflammation of the conjunctiva induced by the jequiritol being too strong a little of the jequiritol serum is dropped into the eye and the inflammation at once subsides. Dr. Römer finds that this treatment is most useful in children with tuberculous and eczematous pannus, vision being rapidly and greatly improved

THE LANCET.

LONDON: SATURDAY, JUNE 29, 1901.

The National Hospital for the Paralysed and Epileptic: Report of the Committee of Inquiry.

WE publish to-day the gist of the report of the committee of inquiry chosen by a committee of governors of the National Hospital for the Paralysed and Epileptic, Queen-square, who were appointed for that purpose at a meeting of governors held in March. A full report of the proceedings at this meeting appeared at the time in our columns.[1] Our readers will remember that this was the outcome of a long and, on the part of the Board at least, at times acrimonious discussion, arising primarily out of a demand on the part of the medical staff for direct representation on the Board of Management. The demand had been made several times in the last 10 years but without effect. Various alternative schemes had been tried, but these had either been found unsatisfactory or had been summarily discontinued by the Board without explanation. The staff felt in the end compelled to address themselves directly to the governors and to call their attention to the faulty administration of the hospital under the present system, to the inadequacy of the nursing staff for the duties required of them, to the insufficient supply of linen, to the unsatisfactory character of the food supplied both to patients and to nurses, and to the inadequate nature of the accommodation provided for the latter. They also drew the attention of the governors to the office of secretary and general director as one which was anomalous and which had proved prejudicial to the interests of the hospital.

Such were the allegations which the committee of inquiry had to consider and to examine. That their task was no light one, and that they have spared neither time nor trouble in carrying it out, will be evident to anyone who carefully examines the record of their findings. In the first place they find that the medical committee were justified in addressing their statement directly to the governors without previously communicating with the Board of Management. The significance of such a finding will not be lost upon anyone who has interested himself in this controversy. With regard to the allegations in this statement, they find that at the beginning of last year the supplies to particular wards fell short more often than ought to have been the case, and at that time also the quality of certain articles of diet afforded good ground for complaint. They also find that the milk was formerly watered. It is also found that even now, although there has been an increase since the beginning of 1900, the nursing staff, notwithstanding that its members are zealous and, as a rule, efficient, is not adequate to the duties required of it and that the accommodation provided for some of the nurses is unsatisfactory. The supply of linen to the wards they also consider to be deficient, and that this is especially the case with regard to the draw-sheets. The latter also are badly and insufficiently washed, a circumstance which the members of the committee verified by actual inspection.

On the matter of the representation of the staff the report pronounces no uncertain verdict. It is recommended that the Board of Management should be increased by the addition of two members chosen by the medical committee from the medical staff—the exact mode and degree of representation asked for by the medical committee—and the opinion is expressed that this mode of representation is a very proper one and the smallest concession which is reasonable. The committee also express their belief that if direct representation of the medical staff had been part of the original constitution of the hospital the present schism in the body would never have arisen or would speedily have been healed.

With regard to the office of secretary and general director the abolition of the office is recommended and alternative schemes for securing efficient medical and administrative control are suggested. The committee express grave doubts whether such an office could ever be satisfactory in such an institution. But if it was to be satisfactory it could only be so under conditions of greater watchfulness and interest on the part of the Board than obtained at the National Hospital for the Paralysed and Epileptic and in the hands of a man who was possessed of tact and judgment as well as of ability, and who carefully kept himself from exceeding the powers with which he was invested. "Unfortunately," they significantly add, "in the present case none of these conditions have existed." Of the energy and ability which the present incumbent of the office, Mr. BURFORD RAWLINGS, has brought to the service of the hospital the committee show adequate appreciation, and they direct attention to the claims which he has on the gratitude of the institution should any changes be instituted as a result of their report. They further point out in this connexion that in most, perhaps in all, of his dealings with the medical staff the secretary and general director received the approval and support of the Board of Management, and that on them rather than on him rests the responsibility for the part which he played. As indicating the peculiar duties which Mr. RAWLINGS arrogated to himself, we need only mention his declining to deliver to the chairman of the Board a sealed letter from a member of the staff and his refusal to admit a patient recommended as suitable by both a physician and a surgeon to the hospital on the ground that the applicant was in his opinion an idiot. The case was really one of traumatic epilepsy and was subsequently operated on successfully at another institution.

It is not quite easy to understand or to appreciate the position and acts of the Board of Management of this hospital. This body consists of 12 members. The average attendance at its monthly meetings was five. It also constituted a house committee, which should have met once a fortnight—26 times a year. In two years this committee met 29 times (instead of 52), and at 18 of these "meetings" only one member was present! There was also a

[1] THE LANCET, March 30th, 1901, p. 961.

finance committee, of the proceedings of which no record was kept. This committee apparently looked at and initialed the tradesmen's bills, one member formed a quorum, and apparently a quorum was sometimes obtained. Of the duties usually performed by a finance committee of a hospital this committee had apparently no knowledge. If the secretary and general director had on many occasions shown a tendency to amplify his jurisdiction beyond its legitimate bounds the Board of Management cannot be accused of having done more than its duty.

With the matters of detail concerned with structural alterations this is not the time to deal. And we need only refer to the guarded pronouncement of the committee in reference to out-patients' payments and their recommendation as to some of the financial arrangements with regard to the funds of the charity. All that we have to do at present is to point out that a grave indictment has been brought against the Board of Management of this hospital; that this has been proved in all its essential points, and that the process has revealed a state of matters urgently calling for reform. The report indicates the lines on which reform should proceed. We do not doubt that the governors, with whom the ultimate responsibility rests, will respond to the call made upon them to reform the institution. Many of the rules and practices of the hospital, as the report points out, are such as to seem almost like an attempt to drown the voices of the governors. Had this not been so reform would have come long ago. Indeed, the necessity for it might never have arisen. But it is not too late, and we are sure that the whole medical profession will unite with us in congratulating the medical staff upon their long and strenuous fight to establish on broad foundations an institution for which they have already done so much, and in expressing the hope that the governors, by adopting the report which we have been considering, may ensure the continuance of the relief afforded at this hospital to a peculiarly distressing class of maladies and at the same time of the opportunities for obtaining a still more intimate and profound knowledge of their nature and treatment.

Local Authorities and Tuberculosis.

THE Camberwell Borough Council has resolved to take an important step, and one which will place it in the position of a pioneer of sanitary reform among the councils of the new metropolitan boroughs, a position which, it claims, was occupied with relation to vestries by the late Vestry of Camberwell. It proposes to prosecute, or rather to prepare to prosecute, vendors of tuberculous milk under the sixth section of the Food and Drugs Act for selling milk not of the "nature, quality, and substance" of that demanded by the purchaser. In order to prevent the infliction of hardship upon the milk-vendors by springing upon them a series of such prosecutions without warning it will not initiate these proceedings at present, but will in the meanwhile cause samples of milk to be taken and examined, so that the sellers may be made aware of the results of such examination and may be enabled to make arrangements for the obtaining of a healthy milk-supply should it be found necessary for them to do so. The resolution passed by the Camberwell Borough Council embodied the recommendation of its Public Health Committee, which in its turn acted upon a report presented to it by Mr. E. C. BOUSFIELD, its bacteriologist, who set out the facts and made his proposal with commendable clearness and succinctness.

We have every sympathy with the movement that seems thus seriously about to be initiated. The sale of tuberculous milk constitutes a real danger, particularly to the young and in districts in which milk businesses are conducted upon a small scale by tradesmen who in no way control, and who do not at present seek to control, their sources of supply. Large dairy companies who purchase their milk by contract with farmers selected by them can and do bind the farmers to permit their farms to be periodically inspected in order that any contamination of the milk in the process of feeding or milking the cows or of sending the milk to the distributing agents may be, if possible, avoided. In such cases as these any milk found to contain germs of tuberculous disease could easily, or comparatively easily, be traced to the particular cow or cows infected. In the case of the small trader the matter will perhaps be more difficult, while the prevention of a repetition of the danger may also not be so easy. We need not go into details, but obviously if the milk does not reach the retailer in the churn in which it originally leaves the farm will be difficult to follow it back to the cow or cows which produced it, and it is also obviously possible for dealers deliberately to conceal and to disguise its origin where it is worth their while to do so. However, there can be no doubt that the first step in the path of progress will be made when it has been established that the vendor of tuberculous milk has been, and, if detected, will be, convicted and punished for selling that which is not of the nature, substance, and quality of the article demanded by the purchaser of "milk." As to whether this end will be attained without further difficulty by the Camberwell Borough Council we are not in a position to say. That body will no doubt consult its legal advisers before it takes the contemplated step, and its legal advisers will have before them the case of GOULDER *v.* ROOK and three other similar cases argued before the Divisional Court on May 13th last, and referred to by Mr. BOUSFIELD. These cases have not yet been reported, except in the newspapers, and the *Times'* account of them does not contain observations mentioned by Mr. BOUSFIELD as having been made by Lord ALVERSTONE in the course of the hearing, to the effect, apparently, that vendors of tuberculous milk might be convicted under the sixth section of the Food and Drugs Act, just as certain vendors of arsenical beer had been in the cases then before the court. Lord ALVERSTONE, according to the *Times*, said that the question was one of fact, that the magistrates had found as a fact that the beer was not of the nature, substance, and quality of the article demanded, and that he could not say that there was no evidence in support of that finding. He did not, however, suggest that any accidental presence of deleterious matter in an article of food would necessarily make it not of the nature, substance, and quality demanded, and he added that each case must stand by itself; while

finally, of the four appeals before the court, two were allowed, one was dismissed, and one was sent back to the magistrates for conviction.

We must not be taken as disparaging or in any way seeking to discourage the action of the Camberwell Borough Council in writing thus of its determination to check as far as it can the spread of tuberculosis. We would rather express our regret that the law should not be clearer on such subjects and that it should have to be elucidated by expensive trials and appeals. But whether an *obiter dictum* of Lord ALVERSTONE justifies proceedings against vendors of tuberculous milk under the sixth section of the Food and Drugs Act or not, we would point out that the Camberwell Borough Council will have put itself in a far stronger position than that occupied by those who prosecuted the retailers of arsenical beer if it adheres to the course which Mr. BOUSFIELD proposed to it. The beer-sellers could urge in defence or in mitigation of penalties that they knew nothing of the arsenic in the beer that they dealt in. The Camberwell Borough Council proposes to warn sellers of tuberculous milk of what they are selling before taking legal proceedings; and whether the Food and Drugs Act applies or not we should be sorry to suggest that the law of England cannot prevent and punish the deliberate and conscious sale of milk laden with the germs of a deadly disease.

The Inclusion of Anæsthetics in the Medical Curriculum.

THE historian who deals with the changes of medical thought during the latter half of the Victorian era will find much to say concerning the increased recognition of the importance of the administration of anæsthetics. For some time after SIMPSON'S great discovery and the revival of the use of ether as an anæsthetic it became at first doubtful whether anæsthesia had "come to stay," and when that question had been definitely settled in the affirmative little or no progress was made in systematising the methods employed or determining who should be their exponents. In the United Kingdom specialisation has answered the problem as far as the hospitals are concerned. In the country towns and outlying villages no equipment of this nature can ever exist. The practitioner must be prepared to undertake the giving of anæsthetics among the multifarious duties of his daily round. We have pointed out on more than one occasion, and notably in a leading article published in THE LANCET of Oct. 27th, 1900, p. 1215, that but few men have ever had preliminary training in anæsthetics, and the majority must therefore be placed at a great disadvantage when called upon to give chloroform or ether. Too many students fail to realise that their hospital career is all too brief and the chances given to them during it pass never to return. In a paper read recently before the Society of Anæsthetists the Vice-President, Dr. DUDLEY BUXTON, urged that every student should be compelled to satisfy the Board of Examiners as to competence in giving anæsthetics before being allowed to practise his profession. This paper and the discussion which followed revealed the fact, which we believe has not been sufficiently appreciated, that really only a very small percentage of our medical students are sufficiently taught the use of anæsthetics. The machinery for teaching exists, and in most, if not all, of the London hospitals the accredited anæsthetists actually lecture and give demonstrations to such students as care to attend. A certain number of students ambitious to hold hospital appointments are obliged to produce certificates of their competence before they can take up their hospital duties, but for the majority no such compulsion has been practised.

We understand, however, that this serious defect in our medical curriculum is shortly to be amended. The various hospital authorities have been approached by the English Royal Colleges and requested to furnish information as to what instruction is at present given in the administration of anæsthetics, and we believe that it is an open secret that ere long it is proposed to include this subject in the compulsory curriculum and to insist upon every student furnishing evidence of his competence to conduct an ordinary case of anæsthesia before his admission to a qualifying examination. The re-organised University of London is also admitting teachers of this subject to the Faculty; so that much has already been accomplished in the direction of placing this vitally important subject on all fours with the other courses of study at present embraced in the medical curriculum.

This is certainly matter for congratulation, for, as it has been insisted upon on many occasions in our columns, both the instruction in anæsthetics and the status of the teachers of that subject have been unfortunately too long neglected. The requirements of modern surgery necessitate not only the precision and accuracy of the operator but the efficient conduct of the anæsthesia. The duration of an operation at the present day is unavoidably longer than it was in the days of LISTON, and not only is absolute anæsthesia requisite for the delicate manipulation of many surgical procedures—such, let us say, as of a gastro-enterostomy—but in such cases the safety of the patient may depend on the knowledge, nerve, and expertness of the chloroformist. The day has passed when the senior student or any chance onlooker was entrusted with the task of producing and maintaining anæsthesia. It is not too much to say that not only may the operation be marred and rendered impossible, but even the life of the patient may be sacrificed by the carelessness or inexpertness of the inexperienced anæsthetist. It is recognised that to obtain even ordinary skill in managing a case of ether or chloroform narcosis a student must receive the most careful training and must, further, be taught the practice as well as the theory of his subject. At present most medical men only learn this after they commence practice, and so they seldom attain the nerve and experience which alone can make a reliable anæsthetist. In the near future we may hope that every medical man will have acquired some acquaintance with the practice of producing anæsthesia while yet in the receptive stage of his student life. We do not wish to imply that there will no longer be need of the services of experts—men of wide and everyday experience in what is one of the most difficult and arduous duties of the medical profession—yet all students can be made competent. They can learn to avoid the recklessness of ignorance and the equally dangerous timidity of inexperience, and this is a great gain alike to themselves and to the public at large.

The Guild of St. Luke and St. Luke's Day.

THE brethren and members of St. Luke's Guild comprise a large number of members of the profession, metropolitan and provincial. The annual service in St. Paul's Cathedral on or near St. Luke's Day (Oct. 18th) has become a hardy annual and a very successful one, the service being well rendered and the sermons, by special preachers wisely selected, excellent. But St. Paul's Cathedral is, after all, but a small part of the metropolis and London is a small part of the United Kingdom. Our London *confrères* number, according to the Medical Directory, 6211, those practising in the English provinces, Wales, Scotland, and Ireland, nearly treble this number, being in all 18,404. Many years ago, when Hospital Sunday was limited to Birmingham, it was suggested in THE LANCET that a Sunday set apart for the benefit of the medical charities throughout the length and breadth of the United Kingdom would have a very beneficial effect. The suggestion, however, has been found to be impracticable, local circumstances as to season and clerical and lay coöperation being so variable. These, however, do not apply to a more general recognition and observance of the feast of the patron saint of the medical profession, St. LUKE the Evangelist and Physician, described by St. PAUL as "the beloved physician." The date of the festival is opportune, being little more than a fortnight after the commencement of the medical year in England and the opening of the medical schools. Professors, lecturers, and students are gathered together, medical practitioners in general have returned home from the holidays, and St. LUKE'S Day comes to remind us of our duty as exemplified in the motto of King's College. The late Sir WILLIAM FERGUSSON seized upon this conjunction in his address when President of the British Medical Association at the annual meeting in London in 1873. "We have begun our work this morning holily under the Dome of St. Paul's," he happily observed, "let us conduct it wisely, and thus fulfil the well chosen motto for King's College, within whose walls we are now met, '*Sancte et sapienter*.'" The more general observance of St. Luke's Day would, without any encroachment upon the annual service at St. Paul's, be a most fitting sequel to the opening of the winter medical session at the different medical schools. It would be chimerical to suggest that every member of the medical profession should be a member of St. Luke's Guild—this is impossible. But a very large proportion of the medical practitioners in these kingdoms are members of the Church of England and many of them would gladly avail themselves of the opportunity of attending a special service on St. Luke's Day or, as might be preferable, the Sunday after. We learn that arrangements for this are being made in Liverpool, the second city in England. The Church of St. Luke was completed and consecrated in 1831. Whether its dedication to the patron saint of members of the healing art was accidental or designed cannot be stated, but it is significant that Rodney-street which closely adjoins it has for many years past comprised the residences of physicians, surgeons, and dentists. The church, moreover, is centrally situated and accessible from all parts of the city by electric tramcars. The Venerable Archdeacon MADDEN, the vicar of St. Luke's, is making the necessary arrangements for the holding of the service on the afternoon of Sunday, Oct. 20th. The sermon will be preached by the Right Rev. Dr. CHAVASSE, Lord Bishop of the diocese, and the occasion is being looked forward to in Liverpool with much interest.

Annotations.

"Ne quid nimis."

THE FACTORY BILL AND THE SANITATION OF POST-OFFICES.

AN amendment affecting the interests of a large body of medical men has been proposed to the Factory and Workshops Act Amendment Bill (1 Edward VII.), and we understand that Sir Walter Foster, M.P., has promised to give it his support. Its purport is to add to the text of Section 45 the following words:—

"And also all Government offices and workshops or other premises used by the Crown or by any department of His Majesty's Government and whether such Government offices, workshops, or premises belong to the Crown or are only occupied by the department for the time being using the same."

This implies that all premises utilised by the postal authorities will be placed under a new and additional sanitary inspector of post-office buildings. Now there are about 600 postal medical officers in the United Kingdom. It is their business to act as sanitary inspectors of these buildings. Special instructions have been issued to each and all to watch over the sanitary conditions of the post-offices in their respective localities. If it could be shown that the postal medical officers had neglected to perform this duty then there might be some reason to appoint an official to overlook their work and to insist on a more strict observance of the rules. But such is in no wise the case. There is, on the contrary, every reason to believe that the postal medical officers are keenly alive to this most important duty. In another column we publish a letter which shows that in regard to accurate information it is not the local officials but rather the central authority which is at fault. It is a matter of difficulty to get correct information from the central authorities, for the statistics that have been given are unclassified. No one pretends that letter-carriers are especially susceptible to pulmonary tuberculosis. It is the letter-sorters, the clerks, and others who are confined indoors all day who become the victims of this disease to an extent which considerably exceeds the average of the general population; and it is the statistics relating to this particular class of workers which are needed and are not forthcoming. Nevertheless, the figures given, though they include all classes of workers engaged for the postal service, show that the deaths from pulmonary tuberculosis among them exceed considerably the general average. Therefore, we may conclude that there are sanitary defects in the buildings utilised by the postal administration. Now if it could be proved that the postal medical officers had taken no notice of these defects, or had never urged the necessity of improvements, then there would be good grounds for appointing controlling sanitary inspectors. But such is not the case. For instance, at the last annual meeting of the Association of British Postal Medical Officers, held in June, 1900, the following resolution was adopted and copies were sent to the Postmaster-General and to the Right Hon. R. W. Hanbury, M.P.:—

"Having regard to the observations made by Mr. Hanbury in the House of Commons, in reply to Mr. Weir, on May 18th

last, it is the opinion of this meeting of postal medical officers that the present position of medical officers is unsatisfactory when dealing with the sanitation of the post-office buildings for which they are held responsible, because sanitary defects, when reported upon by them, in many cases remain unremedied.

It is hereby suggested that it would be advantageous if Her Majesty's Office of Works, after conference with medical officers, were to carry out necessary sanitary recommendations made through the recognised departmental channels."

Here it may be explained that the Association of British Postal Medical Officers extends throughout the United Kingdom and that nearly every medical officer in the employ of the Post Office is a member of this association. Further, one of the objects of the members of this association is voluntarily to study and to consider all means by which they can discover, and all measures by which they can prevent, the spread of disease among the 160,000 employés of the British postal services. The association has, at its own expense, collected much information on this subject and has not lost any opportunity of bringing the facts thus collected to the notice of competent authorities. Under these conditions it is urged that the appointment of an outside sanitary inspector to visit and to examine the post-offices, &c., is an unnecessary expenditure of public funds and that this may occasion a considerable amount of friction. When the recommendations that have already repeatedly been made by the postal medical officers have been taken into account and carried out it will be time enough to move for further inspection should the measures proposed prove inefficacious. To appoint now another and a controlling class of inspectors seems to infer that the inspection as it now exists is inefficient, whereas the inefficiency rests in the fact that the recommendations made have not been carried out. Under such circumstances it is very natural that the postal medical officers should protest against the proposed amendment to the Bill now before Parliament, and we hope that their arguments will receive full consideration.

PSYCHOPATHIC HOSPITALS.

IN the eighth annual report of the State Charities Aid Association of New York presented to the State Commission in Lunacy in November last, after referring to two distinct results which have after years of constant effort been attained —viz., economy of asylum administration and adequate provision against overcrowding of patients in institutions— the report deals with a scheme for founding psychopathic hospitals for the acutely insane in the State of New York. The curative treatment of insanity was as yet (said the report) in its infancy. The insane had been regarded for too long a period as persons for whom custodial care only was required. In many of the States of the Union numbers of them were still to be found in gaols and poor-houses. To promote the advancement of knowledge regarding treatment it was necessary to secure the best medical skill that the country afforded. If a hospital for the reception of a limited number of acute cases of insanity (say, 600) could be established at some place readily accessible from New York the association felt assured that it would receive freely the services of the most eminent alienists of New York who would gladly serve as attending and consulting physicians. Into such a hospital would be gathered all cases of supposed insanity and recent cases of certified insanity, and here they would be examined and classified by the attending physicians before being placed in suitable wards. Cases of general paralysis or other marked forms of incurable insanity would be sent to other institutions appropriate to such cases. Cases possibly curable would be kept for a limited period in the reception hospital until it was decided whether they could benefit by further stay and treatment or whether transfer to another institution was desirable. There would be an out-patient department connected with the hospital from which patients could be received into the wards and where students would have an opportunity to familiarise themselves with the diagnosis and treatment of the minor forms of mental alienation and disorder. The practitioner who was often called upon to treat such cases and whose knowledge regarding them was very slight could here acquire useful knowledge and experience. Under the roof of such a psychopathic hospital the already established pathological institute of the New York asylums would naturally find its home. The proposed reception hospitals, of which the first will be erected at Rochester, N.Y., are designed to form part of the existing State hospital system. Controlled by the same board of managers, they will be "in close touch with progressive scientific work wherever found, be that within or beyond the walls of the present buildings." It is finally pointed out that the scheme advocated is not entirely new. For many years such psychopathic hospital have been established in Vienna, Heidelberg, Strassburg, Leipsic, and other cities. That of Giessen, opened in 1896, is the most recent, and is considered to be the best by Dr. Frederick Peterson of New York who visited that and other institutions in 1899. Until overcrowding of patients is relieved there can be no proper classification and without proper classification but little progress can be made towards satisfactory treatment. The time has come when all efforts should be made to secure these ends—viz., the prevention of the preventable insanities and the proper classification and cure of the curable insanities. The provision of psychopathic hospitals was one of the means to such ends.

THE ORGANISATION OF A PURE MILK-SUPPLY.

IT is undoubtedly a gain to public health that the supply of milk is being undertaken on a large scale, for the organisation of a large business is calculated to include arrangements for the scientific control of the purity of the milk, involving the employment of a scientific staff. Obviously these arrangements are beyond the capacity of the ordinary cowkeeper or milkman acting alone. The fact is, the production of milk has for too long been carried on in a rule-of-thumb way. Now, however, that it is known that milk is one of the most powerful factors amongst us as a carrier of disease it becomes incumbent upon all milk-producers upon their part to ensure, as far as possible, the supply of milk about which no suspicion can be reasonably entertained. We are glad to think that our big dairy supply companies recognise this responsibility and accordingly spare no expense in taking precautions to secure the supply of milk derived from healthy cows. The Aylesbury Dairy Company inform us that they prepare a regular set of printed forms which have to be filled up by the various persons concerned in the production and consignment of milk. Thus on the application of a dairy farmer to be allowed to contract for the supply of milk he must fill up a form relating to the entire circumstances under which he can supply the milk. These circumstances are considered by the company and everything being satisfactory the farmer signs a contract subject to the farm being reported upon favourably by the medical officer of health of the district, and to the water-supply being passed by the company's resident analyst. Then, and not till then, is milk allowed to be sent to the company. These relations once established the farm is visited at least once monthly by the medical officer of health who has a form provided for him to fill up. Again, a form is provided for the veterinary surgeon in which he is to report the condition of every animal, and should the slightest suspicion of tuberculous disease be entertained the

tuberculin test is applied and the result is reported. In the event of infectious sickness breaking out on the farm the milk is immediately stopped until a certificate is furnished from the medical officer of health to the effect that the company may continue to receive milk from the farm without danger to their customers. Lastly, in cases of infectious sickness occurring in the house of a customer delivery by the ordinary service is discontinued and all supplies are sent by special messenger. Precautions like these are admirable, and if strictly carried out would soon render the conveyance of disease by milk a thing of the past. We believe that the Aylesbury Dairy Company were amongst the first to establish a milk business on these excellent sanitary lines, and we are glad to know that their example has been followed by other great milk companies in London and the provinces.

THE ARMY MEDICAL SERVICE.

As our readers will see by a reference to our Parliamentary Intelligence column Mr. Brodrick declined at the present stage of affairs and under existing circumstances to make any definite statement about the proposed re-organisation of the medical department beyond saying that various measures are in progress to that end. In reply to a question by Captain Norton, as to whether, in view of the fact that there was at the head of the Army Medical Department at the present time only an Acting Director-General shortly about to retire from the service, the Secretary of State for War would say when a new Director-General would be appointed, Mr. Brodrick said: "No, I can make no statement on the subject," accompanying it with a remark to the effect which we have already stated. It is needless to say that this state of uncertainty has a very injurious effect on the medical service and a deterrent influence on any intending medical candidates. There is no end of speculation and conjecture, but nothing is really known as to what are the intentions of the War Office or what is to be the outcome of the present condition of affairs. After what Mr. Brodrick has said on previous occasions there must, we imagine, be a searching inquiry on the part of the Secretary of State into the causes which have led to that condition, the effect of which has been to empty the Army Medical Service of candidates. The sooner this is undertaken the better for all concerned and the promulgation by Mr. Brodrick of the names of those who constitute the committee is anxiously awaited.

ACUTE DERMATITIS FROM A HAIR-DYE CONTAINING HYDROCHLORATE OF PARA-PHENYLENE DIAMINE.

IN the *Journal of the American Medical Association* of May 18th Dr. A. D. Mewborn has published an important case of acute dermatitis from the use of a hair-dye which is much used in France and which contains hydrochlorate of paraphenylene diamine. A point of particular interest is that the application of this dye to the scalp may produce lesions on distant parts of the skin or even a general eruption. This fact might easily cause the eruption to be overlooked, particularly as patients are prone to deny the use of a hair-dye. A woman, aged 44 years, had severe dermatitis of the face and a pruriginous papulo-vesicular eruption on the arms and thighs. The forehead was swollen, red, and shiny, and there were a few small vesicles near the margin of the hair. The eyelids, especially the upper, were puffy and the conjunctivæ were slightly congested. The ears were red and swollen; along their upper borders were numerous small vesicles which were filled with straw-coloured fluid and which in places had formed granular crusts. The nose and cheeks were slightly swollen. On the forearms and anterior and inner sides of the thighs were numerous small, mostly perifollicular, papules and a few small vesicles. The patient said that she had had at intervals during the past seven years a somewhat similar eruption which was diagnosed as eczema. The greater intensity of the eruption along the border of the hair and on the upper part of the ears suggested examination of the hair, which showed signs of having been dyed in the temporal and frontal regions. The patient admitted that she had been using a French hair-dye for three weeks. A day or two after commencing its use she felt a prickling sensation in the eyes which was followed by intense inflammation of the face. This dermatitis produced by hair-dye is well known at the Hôpital Saint Louis, Paris. Its zone-like distribution in the upper third of the face, the swollen eyelids, and the vesicles on the margins of the ears are characteristic. Fournier sometimes astonishes a patient by saying: "Madame, you dye your hair; you use a dye composed of two liquids; you apply the dark liquid first and then the clear liquid." Such is the method of applying hydrochlorate of paraphenylene diamine. The first solution is an aqueous or alcoholic solution of the substance; it is applied to the hair on a brush or sponge. The second solution is oxygenated water and is applied a few seconds later on another brush or sponge. The effect is almost instantaneous. Quinone ($C_6H_4O_2$), a substance which gives off irritating fumes, is produced. The hair has at first a violet tint. This becomes darker under the use of the oxygenated water, and tints varying from auburn to jet black may be obtained. The eruption is almost always found on the border of the hair or on the upper lip in those who dye the moustache. The forehead, neck, ears, entire face, shoulders, arms, and even the whole body may be affected. The eruption may appear after the first application or not until the dye has been used for several months. Some subjects have no eruption but complain of prickling in the eyes for days after its use. Intense itching is another characteristic; it may be most marked in the scalp. The eruption consists of erythematous, urticarial, papular, and vesicular lesions. Its involution is slow; the skin remains rough, œdematous, and desquamating for weeks. Brocq has described a grave erysipelatoid form of eruption with fever and adenitis. He saw a young woman who had desquamation of the whole body with great depression and fever. He recommends that in view of the increasing number and severity of the cases a law should be enacted that this dye must be labeled, "Dangerous to persons who have had eczema or who have irritable skins." G. Tissot[1] has arrived at the conclusion that all hair-dyes are dangerous and may produce inflammatory or toxic symptoms, and that their sale should be regulated. Paraphenylene diamine he considers to be the most dangerous. As to the treatment, sedative applications should be used; in the grave forms the hair should be removed, as the dye which remains in it continues to act as an irritant. Of the production of lesions on the body generally several explanations may be given—the transference of the irritant by the hands, the absorption of the drug into the blood, and a nervous influence.

THE HOUSING OF THE WORKING CLASSES.

SALFORD, like so many other places, feels the difficulty of providing dwellings for working people. The corporation obtained a provisional order some years ago for the demolition of some insanitary property and paid £4 13s. 6d. per square yard for the land. One condition of the order was that provision should be made for the rehousing of the people as soon as possible. The chairman of the Health

[1] Thèse de Paris, 1898.

Committee said that if they built four-roomed cottages on the land they would cost between £400 and £600 for land alone, which would mean "a terrible loss to the borough," and if they built four-storeyed tenements there would be a very costly chief rent on each, and he thought that they should try to obtain the sanction of the Local Government Board for leave to sell the land for other purposes. It was objected that in this case over 500 houses had been pulled down and only 61 built to replace them, but in the end the motion was carried that the Local Government Board should be asked to relieve them from the obligation to build on the site of the demolished houses. It is becoming more and more evident that the costly land in large towns cannot be used for workmen's cottages, nor is it desirable on the score of public health that an overcrowded insanitary area should be again overcrowded, the only difference being that in the latter case the tenements are new. Cheap and convenient modes of transit to an outer zone may turn out to be the best solution of the difficulty.

THE NEW CORONER FOR THE CITY OF LONDON.

ON Thursday, June 20th, a meeting of the Court of Common Council was held to elect a coroner in the room of Mr. S. F. Langham who has retired. Out of 18 candidates three had been selected, all of whom were medical men and, in addition, barristers. Their names were: Dr. Major Greenwood; Dr. H. R. Oswald, deputy coroner for the western division of London; and Dr. F. J. Waldo, medical officer of health of St. George-the-Martyr, Southwark, and also to the honourable societies of the Inner and Middle Temples. Dr. Greenwood received 23 votes, Dr. Oswald 52, and Dr. Waldo 96. The Lord Mayor therefore declared Dr. Waldo to be elected coroner. Our views upon the desirability of a coroner being a medical man need no recapitulation here, but we are glad to see that all three selected candidates were medical men. We offer our sympathy to the unsuccessful candidates and our congratulations to Dr. Waldo. He has done such good work in his capacity of medical officer of health of the parish of St. George-the-Martyr that we feel sure that the City has secured an officer in whose hands the honour both of the ancient City and of the ancient office will be absolutely safe.

THE INCREASING PREVALENCE OF CANCER IN THE UNITED STATES.

DR. IRVING PHILLIPS LYON, pathologist to the University of Buffalo, contributes an interesting and somewhat exhaustive study to the June number of the *American Journal of the Medical Sciences* dealing with the increasing prevalence of cancer in the United States, and particularly in the town of Buffalo. A paper by Dr. G. B. Massey on the former subject has been referred to in these columns already.[1] The study of the cancer distribution in Buffalo for the period 1880 to 1899 leads Dr. Lyon to favour the parasitic origin of cancer and to regard it as associated with certain localities, races, and modes of life. Next to direct histological and bacteriological investigation a promising field of research lies, says Dr. Lyon, in the statistical study of the disease in relation to race, social conditions, and natural environment. On a large-scale map of Buffalo all cases of deaths from cancer (2005 in all) were marked out by coloured dots. It quickly appeared that while certain parts of the town showed a scarcity other parts showed a concentration of such "dots" of mortality. "A remarkable concentration is shown in the wards inhabited largely by foreigners, and particularly by Germans." Comparing these facts with the density of the population in order to avoid fallacy, it appeared that nearly every ward in the region showing a concentration of deaths represented "a real and not merely an apparent concentration of cancer." The figures for the period of 19 years (1880 to 1899) showed that German wards with a mean population of 104,753 had 888 cases of death from cancer, while those inhabited largely by native-born Americans with a population of 109,527 had 450 cases. The "German" wards include Poles, as the latter came from German Poland and it was found impossible to separate the two races. On the other hand, the Italian quarters, though densely populated, showed a low ratio of cancer mortality. The highest cancer-ratio prevailed among the Irish population—viz., 6·40 times that of the native Americans; then came Germans and Poles, whose ratio was 4·81, while among the Italians it was the lowest of all foreigners—viz., 1·93. In the native-born Americans the male cases of cancer were to the female cases as 50 or 60 to 100. Among the German inhabitants, however, the sexes were affected in nearly equal proportions—viz., 93 males to 100 females, and this applied not only to Buffalo but to the whole of the United States. The Germans and Poles also stood out in contrast with the native-born population, and probably also in contrast with other foreigners, in showing a remarkably high rate of death from cancer of the stomach and liver—viz., 43·8 per cent. of all cancer cases, as against 21 per cent. for the natives. Conversely, a low rate of cancer of the uterus and breast prevailed among German women—viz., 34·4 per cent., as against 61·6 per cent. for females born in the United States. "The lower rate of cancer of the uterus and breast in German than in American women seems," says Dr. Lyon, "to be a weighty argument against the embryonic theory [of cancer], as it is well known that the birth-rate and habit of nursing at the breast are greater among the Germans than the native-born, and therefore, if the embryonic theory were correct, cancer ought to be more frequent in these organs in Germans, because of their relatively greater use and exhaustion. The reverse is shown to be the fact." From a consideration of habits, food, and social environment Dr. Lyon favours the view of infection, mainly from bad food, as a favouring cause of cancer, as upheld by the observations of Behla.[2]

THE DEGRADATION OF THE POST OFFICE.

WE should like to ask His Majesty's Postmaster-General whether something cannot be done to stop the flood of objectionable circulars which are daily and hourly distributed to His Majesty's faithful subjects by means of the department over which he presides. There are the delectable circulars of Mr. Charles Carrington, the swindling notices sent out by Tanqueray, the allurements of money-lenders, and the filthy little books sent out by the blackguard who calls himself Dr. Bell—to say nothing of numerous others. These, however, are sent in closed envelopes and so they may possibly not be recognisable. But there can be no excuse for the distribution of circulars advertising the virtues of various proprietary medicines which mostly emanate from America. Only recently a correspondent sent us a post-card which had been dropped into his letter-box, on which was inscribed a puff of a preparation said to be an absolute cure for painful menstruation, and now several correspondents have forwarded to us the wrappers of circulars dealing with certain pathological conditions and drugs for the same, the said circulars being emblazoned in large letters, "Constipation Number." This sort of thing should be stopped and the Postmaster-General could easily do it if he liked. It is ridiculous to say that officials have not time to investigate. They have time to examine letters and to surcharge them for trivial breaches of the regulations. Only the other day we

[1] THE LANCET, March 10th, 1900, p. 717.

[2] Zeitschrift für Hygiene und Infektionskrankheiten, 1899.

saw an instance in which a quantity of cards had been sent out. They were all printed with the usual notification of an "At Home," but the date had been filled in in ink. These cards were sent in an open envelope with a halfpenny stamp and had been in many instances surcharged as being of "the nature of a letter." Now, if the Post-office authorities have time to do this sort of thing they could easily detain circulars of the sort to which we have referred. And they will have to do so.

THE LONDON HOSPITAL LODGE OF FREEMASONS.

WE are glad to be able to announce another recruit to the ranks of Medical Freemasonry, a warrant having been granted by the M.W. Grand Master of the United Grand Lodge of England for the foundation of the London Hospital Lodge. The date of consecration is fixed for Oct. 2nd, at the Hotel Cecil. We believe that the officers named in the warrant are A. E. Sansom, M.D. Lond., F.R.C.P. Lond., as Worshipful Master, and F. S. Eve, F.R.C.S. Eng., and F. J. Smith, M.D. Oxon., F.R.C.P. Lond., as Senior and Junior Wardens respectively. The London Hospital is the sixth metropolitan hospital to attach to itself a Masonic lodge. Freemasons connected with the London Hospital will find further information in our advertising columns.

ORGANISED RESCUE WORK IN COLLIERIES.

A MOST praiseworthy proposal is receiving, we are glad to learn, very serious consideration by colliery owners. It is the establishment of practical rescue stations in colliery districts. It seems remarkable that such an admirable suggestion has not before been acted upon. We have organisations for the rescue of life at sea, at bathing stations, at rivers, or in the event of fire, but no such organisation has apparently been seriously attempted in colliery districts where too often ghastly losses of life take place. We are sure that if colliery owners could see the benefits to be derived from a local centre from which a body of men could be drawn in case of accident quickly to restore ventilation and afford relief in other matters in connexion with a colliery explosion they would not hesitate to unite in sections and to establish stations throughout the whole of the colliery districts. Dr. J. S. Haldane has clearly shown in his able investigation undertaken for the Home Office that a good deal more might be done towards saving the lives of those struck down by that most poisonous product of explosions in collieries—carbon monoxide. Taking the average of a number of explosions he computed that some 77 per cent. of the men whose lives had been lost might have escaped but for the deadly nature of the after-damp. Undoubtedly, if oxygen could be quickly brought into the mine many lives would be saved, while the rescuing party could, of course, be provided with a means of access and a means also of supporting their own lives during their work of exploration and rescue. Steel cylinders containing compressed oxygen have been suggested for the purpose, and the most recent form of apparatus for breathing in a noxious atmosphere by means of compressed oxygen is the pneumatophore. But, as is pointed out by Mr. M. A. Habershon in a valuable and instructive paper read before the Institution of Mining Engineers, although a number of colliery owners have provided themselves with apparatus comprising one or two pneumatophores it is to be feared that their value in an emergency will be considerably less than it should be because men are not being trained to use them and the apparatus is likely to become only a trap. Again, in order that the pneumatophore may be of real use in any actual work of rescue or exploration it is essential, as Mr. Habershon points out, that there must be at hand without any serious lapse of time, not only a number of these appliances, all of which must be in proper working order, but also an adequate supply of compressed oxygen cylinders, of bottles of caustic soda, and, what is more important still, a number of men experienced in the use of the apparatus. The delay consequent on having to telegraph for, and to await the arrival of, a supply of oxygen would probably render any proposed use of pneumatophores by a rescue party too late to be of any service in saving life and certainly too late for the work of exploration which is generally of immediate importance. A few trained men with pneumatophores and electric lights and a proper reserve supply of oxygen would be able to penetrate any atmosphere, however noxious, and if they could get into the pit during the first few hours after an explosion might obtain information which would be invaluable to those in charge and would facilitate the work of reaching any men who might be shut off from access to the shafts. Of course assistance at the same time could be readily given to any men met with in proximity to the pit bottom. As regards the constitution of rescue corps it is intended at the Normanton collieries to select a number of deputies of workmen from each colliery or pit in the group, only strong, healthy, resolute, and intelligent men who are fit for such work being chosen. Preference will be given to those who are holders of first aid certificates. These men will be required to attend practices or drills with the apparatus at the station until they become sufficiently experienced and obtain the necessary dexterity in the use and handling of the apparatus. A list of the names and addresses of efficient members of the corps will be posted up at the station and will be supplied to each colliery. It is further intended that a sufficient number of the men employed by each of the subscribing companies shall be trained so that eventually each colliery will have a rescue party composed of its own men. We cannot conceive an organisation with a nobler aim than this, and everyone will most heartily wish it God-speed.

DEATH UNDER CHLOROFORM WITH UNUSUAL PHENOMENA.

A SOMEWHAT unusual form of circulatory failure following the inhalation of chloroform is reported to us from the Royal Berkshire Hospital. The patient, an anæmic boy, aged eight years, suffering from tuberculous cervical glands, was given chloroform by an accredited officer of the institution with the view of an operation being performed for the removal of the diseased glands. A drop-bottle was employed, the chloroform being dropped upon lint. The quantity used is not known. The patient was nervous and he cried during the administration. At first he dozed off but was aroused and finally was narcotised, the breathing being regular and the pupils contracted. The operation was then commenced. After the skin incision was made and when traction was exerted upon the layer of cervical fascia surrounding the glands the pupils became widely dilated and the respiration grew shallow, although regular and slow, while the pulse was scarcely perceptible. The operation was at once stopped and strychnine was injected, a slight improvement in the pulse taking place. As this was not maintained ether was injected, artificial respiration was commenced, and hot-water bottles were applied, and the boy was removed to the ward. The breathing again improved, a more natural colour appeared, and the pulse grew perceptible. The pupils were now contracted to about normal, the left one (i.e., on the side of the operation) being slightly the smaller. Failure of respiration and circulation again occurred and inflation of the lungs with stimulation by faradaism did not prove successful, the lad dying in about 35 minutes from the first onset of dangerous

symptoms. The phenomena detailed certainly appear to have been due to failure of circulation, probably from vaso-motor paresis. It seems likely that during the crying more chloroform was allowed to enter the lungs than the feeble condition of the patient could withstand. As is well known, anæmic subjects are very readily overdosed. The medullary centres, poorly nourished, become narcotised with quantities of the anæsthetic relatively small, while the consequent feebleness of respiration and failure of the vaso-motor safeguard at once lead to accumulation of the poison and deportation of blood from the arterial to the venous system. We do not gather that inversion on the first onset of faintness was put into practice; if it were not it is to be regretted, as we have no doubt that the first remedial measures to be adopted in such cases are inversion and either pulmonary perflation, by preference with oxygen, or, failing this, by artificial respiration. It is very exceptional to find a patient who survives the first few minutes after the dangerous symptoms have arisen is lost eventually, and such an occurrence could only take place as the result of extreme asthenia or very prolonged and excessive narcotisation. It is not unusual in the later stages of the operation for removing tuberculous glands, when traction upon the deeper structures involves interference with the vagus, to find that symptoms arise similar to those reported in this case, although, happily, they are generally relieved by prompt measures.

SAFETY IN NUMBERS?

FOR those people who find pleasure in the manipulation of statistics there is a rich harvest of delight in the recently issued preliminary report and tables resulting from the census investigations of April 1st, 1901. Even the abstract from the report in the *Times* of June 15th is full of figurative plums for that large class of persons who find interest in such matters. It is curious how many men there are to whom bare figures are a source of interest and gratification; men whose chief pleasure in life is the examination of tables, the comparison of annual statistics, and the detection of minor mathematical flaws. To all such the census returns are of course a *bonne bouche*, the taste of which will linger pleasantly for weeks and months of the present year. Even the less statistical, however, can find in these figures something of interest and to the medical man certain facts brought out are not unimportant. He ponders over the astounding increase of town as opposed to country population and on the excess, over 1,000,000, of females over males in Great Britain. Along with the first he places, perhaps, the predominating part that nervous diseases of all kinds tend to acquire in modern nosology and the second makes him introspective of the position of the medical woman. The remedy for such developments of particular kinds of population is, of course, not in the province of medicine. We are engaged in what sometimes appears to be the paradoxical pursuit of preserving human beings, whether fit or unfit, whether their "survival" is really for the benefit of the nation which owns them or the reverse. Healthy or of deficient physical qualities, however, they all play an equal part in the census returns and the most diseased individual may console himself with the reflection that on paper he is as fine an item as Mr. Sandow himself. What is to be done for the female plethora? Physical science offers no resource, for in spite of the sanguine recommendations of certain continental physicians we believe medicine is not yet in a position to offer even the most patriotic of mothers a son when the, at present, inconvertible course of nature has determined on a daughter. The production of women rather than of men is not to be limited by any means at our disposal; it remains for the political forces of society to dispose of them to the greatest advantage for the nation. English women, happily, have never been wanting in the courage and enterprise of their race, and doubtless in our growing colonies will be found the natural home of many females whom it would be ungracious to characterise as "superfluous" in Great Britain.

BRITISH CONGRESS ON TUBERCULOSIS.

WE hear that the arrangements for the above congress are not only in a very forward state in this country but that active measures are being taken abroad to secure a large number of continental visitors. In a previous issue we have given the names of the German committee presided over by His Serene Highness the Duke of Ratibor. In Paris a French committee has been formed under the presidency of Professor Brouardel, with Dr. Thoinot as honorary secretary, assisted by Dr. Morny, Dr. Serairon, and Dr. Dumarest. This committee has sent out a special circular to members of the profession and others who are particularly interested in the question of tuberculosis. Amongst those who have already inscribed their names are the Prince d'Arenberg, Professor Brouardel, Professor Lannelongue, Professor Proust, and Professor Nocard, and Dr. Martin, Dr. Léon-Petit, Dr. Sabran, Dr. Letulle, and Dr. Hérard. Professor Julian Colleja, President of the next International Congress in Madrid, one of the Vice-Presidents from Spain, is also exerting himself to promote the interests of the cause. Professor von Schrötter, Professor Weichselbaum, and others have likewise joined from Austria; amongst the representatives from America will be Professor Osler and Professor Janeway, while numerous acceptances have been received from Hungary, Italy, Belgium, Norway and Sweden, Holland, Switzerland, Portugal, and Egypt.

FRENCH GOVERNMENT COMPENSATION FOR ACCIDENTS.

AT the International Congress of Miners which met recently in London the British delegates complained that the law on compensation for accident could only be applied if the accident was of so serious a nature that the victim was invalided for more than 15 days. The French delegates, on their side, complained that the French law only allowed compensation on the fifth day, and though this was a great improvement on the English law, still they were not satisfied. The French Government apparently shares this dissatisfaction, and it is in this respect ahead of the French legislature. On Feb. 1st, 1901, an official circular was issued in regard to the compensation to be paid to workmen in Government employment when they were injured in the course of their work. This circular points out that, according to the law of April 9th, 1898, a workman temporarily incapacitated through an accident was entitled to receive half the wage he was earning at the time when the accident occurred if on the fifth day he was not able to return to work. But before this law was enacted Article 20 of the decree of June 1st, 1875, had stipulated that workmen in Government employ who fell ill or met with an accident and were confined to their beds were from the first day to receive their full wages for, however, not more than three months. If the illness or accident was so serious that the patient did not recover in the course of three months then a special arrangement would be made. The circular of Feb. 1st, 1901, explains that if the Government were to content itself with the application of the Law of 1898 the position of the workers in their employ would be much less favourable than formerly. Therefore the circular calls attention to the Ministerial decree of Jan. 23rd, 1901, which states that an accident causing death or permanent, complete, or partial incapacity from work shall be dealt with according to the law of April 9th, 1898. But the law shall only come into

operation after the tribunals have recognised the permanent character of the incapacity resulting from the accident. Till such time and even if it extends beyond the three months' limit established by the decree of 1875, the workman shall receive from the State his full wages. If, however, the injured workman is not nursed in his own home but is treated and maintained in a hospital he will still receive half his wages, so that his family shall not be in distress. In a word, the principle is full wages or the equivalent in hospital treatment till the workman is cured and returns to his work, or, being recognised as permanently injured, is pensioned off. Thus the Government seeks to set an example as a model employer. Its generosity goes far beyond the stipulations of the law.

DEATHS FROM ANTHRAX.

THE comparative rarity, happily, of deaths from anthrax renders the two fatal cases that recently occurred in Bradford the more noticeable. Anthrax, or wool-sorters' disease, is pre-eminently one in which thorough precautions taken for and by those whose work exposes them to contamination will go far towards ensuring perfect safety. Absolute safety is of course not merely a matter of providing the means for obtaining it. A large part depends in this, and in all similar circumstances, upon the care and intelligence with which a workman uses the weapons of defence that are placed at his disposal. Unfortunately the familiarity of contempt is rapidly bred among workmen, and employers often suffer, not because they have not as far as possible made every provision for the safety of their men, but because the men have grown careless in using such provision. In the first of the two cases to which we are referring some such state of affairs may be responsible for the death. At any rate, it appeared in the evidence at the coroner's inquest that all the factory regulations had been complied with, that wool was sorted only over a sorting-board, and that employés were forbidden to take food in the carding-room. In spite of these precautions a "card-feeder" had developed a malignant pustule on the back, from which she died in a few days. The second case was that of a man who, it seemed fairly obvious, had contracted the disease through sorting dangerous wools in a cellar, without any precautions being taken. He contracted anthrax of the face which rapidly proved fatal. Evidence showed that the wool-combers' business where he was employed was old-fashioned and that modern methods were only being gradually introduced. A verdict of manslaughter was returned against the manager.

THE CERTIFYING OF LUNATICS.

IN consequence of several recent scandals connected with certain Poor-law unions in which the relieving officers have received payments from the district medical officers or from proprietors of private asylums and licensed houses in connexion with the certifying of lunatics and their admission into such houses, a circular letter has been addressed from the Home Office to clerks to county and borough justices, stipendiary magistrates, and the metropolitan magistrates, drawing attention to the following points: 1. Section 16 of the Lunacy Act, 1890, directs that in the case of a pauper lunatic who is brought before a justice the latter "shall call in a medical practitioner and shall examine the alleged lunatic," *and it is only when the practitioner has signed* a medical certificate with regard to the lunatic that the order for his removal can be made. In some cases relieving officers have usurped the duty of selecting the medical practitioner, a proceeding which not only violates the law but has lent itself to grave abuse. 2. A justice should not sign the reception order until the medical certificate has been signed and laid before him. In some cases a laxity has been noted in this respect. 3. The name of the institution to which the lunatic is to be removed should be filled in by the magistrate or justice and not left blank. The latter course has permitted relieving officers to fill in the blank with the name of any institution to which they had inducements to take the patient and it has been also advised by the law officers of the Crown that if the blank is not duly filled up the order cannot be legally acted on. 4. Finally, according to Section 27, Sub-section 2, of the Act the lunatic "shall not be sent elsewhere than to an asylum of the county or borough in which the place from which he is sent is situate," except owing to absence of accommodation or special circumstances. Magistrates should be specially insistent on the observation of this rule as far as practicable. These instructions are both necessary and opportune just now.

ANEURYSM OF MYCOTIC-EMBOLIC ORIGIN.

DR. O. LING of Dorpat contributes to Part 5, vol. ix., of the *Russky Archiv* (edited by Professor Podwissotzky of Kieff) an article on Aneurysm of Mycotic-embolic Origin. It is a paper of considerable interest, both from a practical and theoretical point of view, inasmuch as it deals with a comparatively rare affection, the pathology of which has as yet received but little attention. Up to the present time not more than some ten cases—exclusive of the one which Dr. Ling reports—have been described in which the real nature of the malady was recognised during life. Dr. Ling begins by analysing the literature of the subject, paying particular attention to Eppinger's observations and conclusions as laid down in an exhaustive monograph by the latter observer. He then proceeds to relate the case of his patient. A lad, 19 years of age, was admitted to the hospital suffering from a complex of symptoms characteristic of so-called "crypto-genetic septopyæmia and septic endocarditis." It appears that on the seventh day of his illness he was suddenly awakened in the morning by intense pain located in the bend of the left elbow, though on examination nothing abnormal could be detected. Soon, however, one important symptom made its appearance—namely, the absence of pulsation in the left ulnar artery and, in addition, it was noted that the pulsations of the left radial artery were of a greater number and more intense in character than those of the right one. In the further course of the disease a comparatively large pulsating tumour, which ultimately became distinctly obvious, was discovered at the very point where the original pains were situated and there were also present a slight but marked swelling of the surrounding parts and discolouration of the skin. The formation of the aneurysm was attributed to a septic embolus which originated in one of the diseased heart valves and located itself at the point of division of the brachial artery into the radial and ulnar branches, thus causing a permanent obstruction to the circulation in the latter and subsequently leading both to the destruction of the arterial coats and the formation of the pseudo-aneurysm. The presence of continued fever throughout the course of the disease is recorded by Dr. Ling as one of the most striking features of the affection. The fever was irregular, presenting at one time the remittent and at another the intermittent type. There was hæmaturia. The condition of the patient gradually became worse, general cachexia and complete collapse soon ensued, and he died seven weeks after admission to the hospital. Dr. Ling gives a minute description of the pathological changes which were found on post-mortem examination. There was an ulcerative endocarditis, partly of an acute character and mainly confined to the mitral and aortic valves; the spleen presented numerous infarcts which were well defined and differed from each other

as regards size and appearance; and both kidneys were found to be in an acute hæmorrhagic state. The coats of the thoracic and abdominal aorta were found unaltered. As regards the nature of the tumour of the left elbow it was found that its coverings consisted of thick membranous layers of newly-formed tissue, thus producing a cavity which was filled with both coagulated blood and puriform matter. The aneurysm contained numerous micro-organisms, practically identical in every respect with those cultivated by Dr. Ling from the mitral and aortic valves of the patient.

PLAGUE IN CAPE COLONY.

A TELEGRAM received at the Colonial Office on June 20th, gives the following statistics of plague at Cape Town for the week ending June 15th. Fresh cases: Europeans, 3; coloured persons, 4; Malays, Indians, Chinese, and natives, 0; total, 7. Corpses found: Europeans, 1; coloured persons, 5; Malays, 1; Indians, Chinese, and natives, 0; total, 7. Deaths (including corpses found): Europeans, 2; coloured persons, 7; Malays, 3; Indians and Chinese, 0; natives, 1; total, 13. The total cases up to June 15th have been: Europeans, 186; coloured persons, 327; Malays, 54; Indians, 11; Chinese, 2; natives, 145; total, 725. The total deaths have been: Europeans, 52; coloured persons, 170; Malays, 39; Indians, 9; Chinese, 0; natives, 64; total, 334. One case, that of a private in the 1st Battalion Welsh Regiment, has occurred among persons under naval and military control. The total cases to June 15th amount to 50, including 10 deaths. At Port Elizabeth for the week ending June 15th the cases of plague have been as follows: Europeans, 1; Chinese, 1; natives, 2; total, 4. One native died. The cases to June 15th have been: Europeans, 2; coloured persons, 2; Chinese, 1; natives, 6; total 11. Total deaths: Europeans, 1; coloured persons, 2; natives, 3; total, 6. The total cases at Mafeking to June 15th have been: Europeans, 2—both privates in 1st Battalion Loyal North Lancashire Regiment. The area of infection remains unchanged.

THE DANGERS OF CHEMICALS IN TRANSIT.

WE have more than once referred to the increased traffic in chemicals and to the new dangers which thereby arise in connexion with those concerned with the transit of such substances. Liquid gases are now a commercial commodity, and to such an extent that special legislation was needed to provide for their safe transportation. Even the cartage of these things through the streets is not without risk to the public. On board ship all kinds of chemicals are carried—metallic sodium, caustic soda, sulphuric anhydride, sulphurous acid, liquid carbolic acid, naphtha, nitro compounds, chlorates, and many other substances with ugly potentialities. In bad weather packages may get adrift and be smashed and the contents may not only damage the ship but be a menace to crew and passengers. It has happened in this way that different chemicals have got mixed, with the result that violent explosions have ensued or poisonous fumes have been produced and the crew overpowered. It is evident, therefore, that the greatest care should be taken as to how such goods are stowed, having regard to the possibility of bad weather and the rolling of the ship, in order that the danger and risk to life may be minimised. The crew, as a rule, are ignorant of the destructive or corrosive nature of the chemical cargo which the ship may be carrying. Such would appear to have been the case in an accident reported recently, although it must be admitted that the circumstances in this case are exceptional and the fatalities which happened are involved in some mystery. A ship sailed from Liverpool to Rotterdam with, amongst other things, a cargo of 48 barrels of crude carbolic acid in hard-wood oil-casks. At sea in rough weather the barrels broke adrift and got smashed, the acid contents being nearly two feet deep in the compartment. Three of the crew went to secure the casks but were badly burned, overcome by the acid, and died almost immediately. At the inquest the deaths of the three men were attributed to the fumes of the acid, but, as Dr. Dupré pointed out in the Board of Trade investigation, death could not have resulted from fumes, because at an ordinary temperature the acid would not give off any appreciable vapour at all. Death was probably partly the result of shock resulting from acute burns and partly due to the absorption of the acid through the skin. The suddenness of the deaths is remarkable. Cases, however, have been recorded in which the external application of carbolic acid resulted in sudden death as though prussic acid had been taken. Instances are, of course, known in which carbolic acid poisoning followed the external application of the acid. It has happened, for example, when the acid has been used prior to a surgical operation. It seems to us that special regulations are needed which will offer greater protection to those who may have to deal with cargoes of chemical substances. The usual ship gang do not understand the dangerous nature of some of the goods which they handle and we consider that when special cargoes of this kind are taken on board warnings should be issued to the crew that they must be on their guard in the event of an accident occurring in the way just described.

STALE v. NEW BREAD.

NEW bread is well known to be less digestible than stale bread, although it need not be so. There can be no question, however, of the vastly superior flavour of the former, and hence the preference of many people for hot rolls for breakfast. So far the palate would appear not to be a safe guide to digestion. Hot rolls, however, when masticated properly should not offer any difficulty to the digestive organs. A slice of stale bread on being broken with the teeth resolves into more or less hard gritty particles which unless they were softened by the saliva would be almost impossible to swallow. The particles would irritate the throat and the gullet. The fact is, therefore, that man is compelled thoroughly to masticate and to impregnate stale bread with saliva before he swallows it. This act, of course, partially digests the bread and thus makes it in a fit state for digestion and absorption farther on in the alimentary tract. This is why stale bread appears to be more digestible than new bread. New bread, on the contrary, is soft, doughy, or plastic, and there appears to be no necessity to soften it with saliva, hence it escapes the preliminary digestive action of the ptyalin of the saliva. New bread, in other words, is in reality "bolted," and "bolting" accounts for many of the ills arising from dyspepsia. Accordingly, hot rolls should be enjoyed for breakfast without any fear of dyspepsia so long as the bread is good and so long as pains are taken to masticate it thoroughly. When a dog is given a piece of meat it will be noticed that he "bolts" it. There is not much reason why it should stay in the mouth, for the mouth, beyond reducing it by the aid of the teeth to a convenient mass, cannot deal with its digestion; but if the dog be given a piece of bread, supposing he eats it at all he will keep it in his mouth for some time and will almost labour over it before swallowing it. The dog thus teaches a very important physiological lesson. It is a curious fact that stale bread is not more dry than new bread, for on submitting stale bread for a short time to a high temperature it regains its condition of newness and becomes soft or plastic and this in spite of the fact that some moisture is of necessity driven off in the operation. It is probable that in new bread there is free water present

while in stale bread the water is still there but in a condition of true chemical combination, and it is this combination which compels us thoroughly to moisten and to masticate stale bread before we consign it to the gastric centres. Similarly the indigestibility of the Norfolk dumpling is probably due to the fact that it is of tough doughy consistency and therefore should receive considerable mastication before it is swallowed. It is a sound physiological plan, therefore, to adopt—as it is said the late Mr. Gladstone adopted—the habit of chewing each morsel a great number of times.

THE SYMPTOMS OF TUMOURS OF THE FRONTAL LOBE OF THE BRAIN.

DR. HÖNIGER records in the *Münchener Medicinische Wochenschrift* of May 7th the symptoms and diagnosis of cerebral tumours affecting the frontal lobe. The tumour may be situated in the region extending from the frontal pole to the anterior or ascending frontal convolution on the convex surface and on the basal surface from the frontal pole to the posterior limit of the roof of the orbit. A diagnosis of frontal tumour may be made when it is accompanied by disturbance of the psychical functions (*Seelenleben*). When lesions of the frontal lobe in the form of atrophy, as in certain idiots, or of diffuse encephalitis or paralytic insanity result there is produced a marked impairment of intelligence. The mental alteration may express itself in the form of loquacity and a tendency to joking combined, and this condition of irrepressible quibbling (*Witzelsucht*) is especially marked when the left frontal lobe is the seat of the tumour. One such case was that of a woman, 50 years of age, one year after she had attained her menopause, and she developed melancholia with hypochondriacal delusions of unworthiness and suicidal desires. There was slight facial paresis on the left side, but there was no appearance of "choked disc" on ophthalmoscopic examination. The above form of loquacity was present. She gradually grew demented and died in a condition of apathy. The occurrence of the above peculiar disposition towards speech was of diagnostic and localising importance, and though but little known is referred to by Bruns in his important work on cerebral tumours. Another trait is an ataxic condition of gait which resembles that of a drunken person. Usually there is not any alteration of reflexes or of sensibility. The abnormal stumbling gait is attributable to a weakness or paresis of the trunk muscles in the lumbo-sacral region and sometimes to a spasmodic contraction of these muscles. A permanent paralysis of these muscles follows as the tumour grows and enlarges, involving the cortex of the superior frontal convolution. In proportion as the tumour approaches the third frontal convolution (Broca's speech-centre) on the left side speech disturbances predominate. Other symptoms develop if the tumour approaches the so-called "motor" area. When the tumour starts in the basal or orbital aspect of the frontal lobe its proximity to the olfactory and optic nerves may give rise to symptoms of disturbance of those nerves. The paralysis of the lumbo-sacral muscles (rump-muscles) has been correlated by Wernicke with the characteristic disturbance of gait, and Munk by experimental ablation of the frontal lobes in both dogs and monkeys has produced analogous results. Hitzig in his earlier experiments had already shown that movements of the rump-muscles were represented in the lateral portion of the gyrus cruciatus in the cat and the dog. A case is given where the diagnosis of frontal tumour was made on the basis of paresis of the rump-muscles associated with sacral pain in a man, aged 54 years. There was the characteristic disturbance of gait, and the symptoms pointed to involvement of the right frontal lobe. Later he developed local headache and tenderness over the site of the tumour, and there were symptoms of pressure on the arm area, producing paresis of the left arm. A few hours before death the temperature rose in the axilla to the extraordinary height of 41·5° C. (106·7° F.). The necropsy revealed an enormous tumour involving nearly the whole of the dorsal half of the frontal lobe, and extending from the frontal pole backwards as far as the fore-edge of the ascending frontal convolution.

MACCLESFIELD GENERAL INFIRMARY.

IN consequence of the resignations from the honorary medical staff of Mr. J. Somerville and Mr. J. B. Hughes, his juniors, Dr. J. L. Rushton has also recently resigned his position among the active medical officers of the Macclesfield General Infirmary. The three oldest members of the staff have thus severed themselves from a position which they have held for many years with credit to themselves and with advantage to the institution. They had been on the staff of the infirmary since it was first opened. If at the monthly meeting of governors at which these resignations were formally announced it seemed right to the chairman to add any expressions of opinion or sentiment upon the withdrawal of these senior medical officers, we should have expected gratitude more than any other feeling to predominate in his remarks. The chairman on this occasion, however, thought fit to expatiate rather on the advantage of securing the services of younger and "more up-to-date" practitioners—a singularly ungraceful way of bidding farewell to gentlemen who had for many years given gratuitously a large part of their time to the welfare of the institution which they were leaving. That the chairman's predominating sentiment was not the feeling uppermost in the minds of the rest of the governors was shown by Mr. Alderman Pickford, who, in proposing that the resignations should be accepted, remarked that they felt they would be conferring an honour upon themselves as well as upon Dr. Rushton if they appointed him on the honorary consulting staff of the institution.

STREET NOISES.

THE flat-racing season is now in full swing and the "runner" is accordingly more of a nuisance than ever. As we have said before, the police decline, as a rule, to interfere except upon the personal complaint of an annoyed brain-worker. This conduct renders the by-law of the London County Council perfectly useless, though in the circular originally issued by Sir Edward Bradford it was implied, if not explicitly stated, that the police could act upon their own initiative. We quoted in a previous number a case in which a constable did act upon his own initiative and where he was backed by the magistrate.[1] But at present the by-law is a dead letter, and we can only urge everyone who is annoyed by "runners"—and that class will include most people—that the best way of obtaining redress is to bombard the member of the County Council for the division in which he resides with letters concerning the nuisance, letters which will ask that he should bring the matter again before the Council. The Council, we hope, will, if worried enough, again call the attention of the police to the by-law and thus the nuisance may be stopped. This should be done in all parts of London, but for ourselves we hope that a commencement will be made with the Strand. If the big business firms, the hotels, the banks, and the newspaper offices all complain there is a fair hope of relief. In the meantime we would point out that even when a citizen does take the trouble to appear at a police-court certain magistrates give

[1] THE LANCET, July 14th, 1900, p. 120.

him practically no redress. At the City summons police-court Mr. Alfred Moore appeared to complain against a newsboy for shouting. Sir Horatio Davies is reported as having said: "People have to pay very high rents in the City and should be protected against a nuisance of this kind, but the public would be very much inconvenienced by not being able to get their evening papers." Mr. Moore remarked that they could see if they did not hear, whereupon the magistrate said: "No one would know much about them being there if they did not call out." The fatuity of this remark is amazing. There are numbers of newsvendors who do not shout and who yet can sell their papers. The boy was fined 6*d*.!

NOTIFICATION OF PULMONARY TUBERCULOSIS.

EVERY step that helps to impress upon the general public a knowledge of the extent to which pulmonary tuberculosis is an infectious and preventable disease must be a step in the right direction towards diminishing the, at present, terrible mortality from tuberculosis. On these grounds the notification of pulmonary tuberculosis may be regarded as a beneficial innovation. Notification, compulsory or voluntary, has not, however, yet been long enough in vogue even in those parts of America where we believe it was first practised for definite conclusions to be drawn as to its value in diminishing the disorder. Moreover, there are certain difficulties that must be recognised with regard to compulsory notification. The first rural district council to institute voluntary notification of pulmonary tuberculosis—that of Bucklow—has recently issued a notice to the medical men within its region of influence. A fee of 2*s*. 6*d*. is to be paid for each voluntary notification, and bacteriological aid to diagnosis is obtainable from Mr. T. W. H. Garstang, the medical officer of health, when desired. We have no doubt that the Bucklow Rural District Council is taking a step likely to be approved by the medical men of the neighbourhood and imitated by district councils elsewhere.

THE introductory address at St. George's Hospital, on Oct. 1st, will this year be delivered by Dr. P. W. Latham, of Cambridge. Mr. J. Warrington Haward will preside over the annual dinner in the evening. The Lord Chief Justice of England has consented to preside at the annual distribution of prizes in October.

THE Committee of Management of the Royal Orthopædic Hospital have been informed through the Earl of Denbigh, the President of the hospital, that Queen Alexandra has graciously acceded to the request made to Her Majesty to become patroness of the charity, in succession to her late Majesty Queen Victoria.

THE summer meeting of the Anatomical Society of Great Britain and Ireland will be held in the Medical Department of the Yorkshire College, Leeds, on Friday, July 5th, from 2 to 5 P.M., and on Saturday, July 6th, from 10 to 12.30 A.M.

THE twenty-eighth festival dinner of the Royal Medical Benevolent College will be held at the Hotel Cecil on Tuesday, July 9th, at 6.30 for 7 P.M. The chair will be taken by the Right Honourable the Earl of Rosebery, K.G.

THE new Pathological Institute of the London Hospital will be opened by Sir Henry Roscoe, D.C.L., F.R.S., on Wednesday, July 10th, at 3 P.M. The distribution of prizes by Sir Henry Roscoe will take place on the same day.

DR. F. W. HEWITT has been appointed Emeritus Lecturer on Anæsthetics and consulting anæsthetist at the London Hospital on his resignation of the post of instructor in anæsthetics which he has held for 15 years.

HIS MAJESTY THE KING has graciously consented to become patron of the Surgical Aid Society.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on June 20th, Sir WILLIAM MACCORMAC, Bart., K.C.B., K.C.V.O., the President, being in the chair.

The PRESIDENT reported the attendance of the delegates of the College—namely, the President, the Senior Vice-President, and Professor Mayo Robson—at the Ninth Jubilee Celebrations of the University of Glasgow and the presentation by them, on behalf of the Council, of an address of congratulation.

A complaint was received from the Medical Defence Union of the conduct of a Member of the College in associating himself with the publication of two pamphlets by means of which it was thought that the Member advertised. The Council, on the recommendation of the Discipline Committee, decided to request the Member to furnish the Council before their next meeting with any explanation that he might desire to offer.

The following examiners were appointed for the ensuing year:—

BOARD OF EXAMINERS IN ANATOMY AND PHYSIOLOGY FOR THE FELLOWSHIP.

Anatomy.—James Ernest Lane, Frederick Gymer Parsons, Alfred Harry Young, and Berkeley G. A. Moynihan.

Physiology.—D'Arcy Power, William Henry Thompson, Thomas Grigor Brodie, and William Dobinson Halliburton.

CONJOINT EXAMINING BOARD.

First Examination.—Elementary Biology.—Frederick Gymer Parsons, Herbert Willoughby Lyle, Peter Chalmers Mitchell, and Walter G. Ridewood.

Second Examination.—Anatomy.—William Bruce Clarke, Stanley Boyd, Arthur Robinson, and Arthur Thomson.—*Physiology.*—Leonard Erskine Hill, George Alfred Buckmaster, and Ernest Henry Starling.

Third Examination.—Midwifery.—Herbert Ritchie Spencer, William Radford Dakin, William Duncan, and James Henry Targett.

Examination in Public Health.—Part I.—Alexander G. R. Foulerton. *Part II.*—S. A. Monckton Copeman.

The Council accepted with thanks the offer from Mr. Algernon Tatham to present to the College a silver medal awarded to the late Sir Erasmus Wilson by the Royal Humane Society for saving a young woman from drowning in 1857.

The Council confirmed the following standing rules for the awarding of the Cartwright prize:—

1. The Cartwright prize will be awarded quinquennially and the first award will be for the five years ending Dec. 31st, 1905.

2. The prize consists of a medal executed in bronze and an honorarium of £50.

3. The subject for the essays to be submitted in competition for the prize is "The Surgical Diseases having their Origin in Abnormal or Diseased Conditions of the Teeth and their Structures, the essay to be illustrated by pathological and microscopical specimens."

4. Candidates for the prize must be persons engaged in the study or practice of dental surgery and possessing qualifications capable of registration under the Medical Acts of the United Kingdom. (A diploma or licence in dental surgery without a medical or surgical diploma or degree will not be a sufficient qualification.)

5. The prize will be awarded to the author of the best essay written in English upon the proposed subject, if such essay is considered of sufficient merit.

6. Every essay must have a motto or device and must be accompanied by a sealed paper containing the name and address of the author, and having on the outside a motto or device corresponding with the motto or device on the essay.

7. Each essay must be addressed to the Secretary of the Royal College of Surgeons of England and delivered at the College not later than 4 o'clock P.M. on Dec. 31st, 1905.

8. The manuscript prize essay and every accompanying drawing and preparation will become the property of the Royal College of Surgeons of England.

9. Every unapproved essay which is unclaimed at the expiration of 12 months from the date of its receipt will be returned, with any accompanying drawing and preparation, to the author thereof at the address given in the sealed envelope.

INVALID RAILWAY TRAVEL.

BY E. M. CORNER, F.R.C.S.ENG., B.SC.LOND., M.D.CAMB.,
RESIDENT ASSISTANT SURGEON AT ST. THOMAS'S HOSPITAL.

THE subject of invalid railway travel must often be brought to the mind of practitioners, yet there is no succinct form in which knowledge of the subject can be obtained. Many people are also interested in railway matters but in the course of a busy life have neither time nor opportunity to cull knowledge for themselves. Invalid travel and accommodation is a subject which is of interest to both patients and railway companies as well as to the practitioner and therefore deserves attention from the profession. As in so many other things, luxury is only to be bought, and consequently the comforts of travel can only be enjoyed by those who are able to pay well for them. The time and the amount of such traffic have not yet come when the various companies can charge less than first-class fares; and, again, as yet there is no competition.

The lines of railway which extend along the southern, and especially the south-western, coasts are those which must naturally have the greatest amount of such traffic and they are the lines that cater most for it. Any line which has a terminus in London must be called upon sometimes to convey invalids to it, and the same remark will apply in a lesser degree to all large towns. The great northern railways do some considerable traffic in this way as well as in bringing invalids down to, or near, London in order that they may continue their journey to their destination elsewhere. To allow of invalids suffering the least possible disturbance they can be carried from place to place over several companies' lines and never be moved from the saloon in which they travel. Arrangements will be made for them in advance and the lump sum paid will be divided amongst the various companies at the Railway Clearing House. Hence the only condition that is requisite is that the lines should be of the same gauge, which is standardised at 4 feet 8½ inches throughout all the great lines of the British Isles. This complete system of transference from line to line without any extra trouble or payment on the part of the traveller is an inestimable boon. When travelling by invalid saloon or family saloon the patient will be taken by fast trains, but with the "crack" trains that are timed closely and run fast the companies may object to the extra weight. But as a rule these scruples can be overcome. When travelling by the invalid road car on a truck, it will not be hooked on to the first-class trains. This is not only for the look of the thing, but also because the truck may interrupt the continuity of the break with the carriages behind it and with the engine.

The situation in the train selected for the invalid's carriage is at the middle where oscillation is least. On a few lines, such as the London, Brighton, and South Coast Railway, where the train is split into two portions—the London Bridge and the Victoria—at Croydon, the carriage is apt to be brought the remainder of the journey very close to either end of the train.

The greatest achievement in invalid travel has been accomplished recently by the London and South-Western Railway when they constructed their hospital train for the use of the wounded returning from the war. It consists of five carriages 48 feet long, run on bogies, splendidly constructed and equipped. They represent the acme of comfort, but they are made to carry many and not a single invalid. The Great Western Railway offer the largest and finest invalid saloons with all the most modern improvements. Of lines on which the invalid traffic is less the London and North-Western Railway and the Caledonian Railway stand out distinct in offering to invalids a temporary modification of their splendid family saloons.

The various methods of invalid travel are by the invalid saloon or railway carriage, the modified family carriage or saloon, reserved compartments and seats, and the invalid road carriage, all of which will be considered categorically and the expenses incurred by each method will be stated.

THE INVALID SALOON.

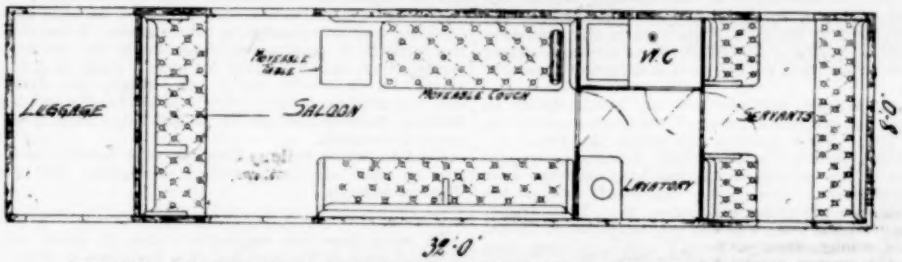
All the great railways build some special coaches, called invalid saloons or railway carriages (Figs. 1 and 1A), which represent their chief effort to meet the requirements of this class of passenger. The saloons are usually divided into four compartments—one for the invalid, one for the attendants, one for the luggage, and one to be used as a lavatory; and these supply all the room and comfort which an invalid needs when travelling. In length the carriages vary from 30 to 34 feet and they run upon six wheels. Only one company has an invalid coach running upon bogies and the long and luxurious carriages of the best trains contain too much room and have too much unnecessary weight to be built for invalid saloons. Hence the shorter and older type of six-wheeled coach is adopted by all the railways, with one exception—the Great Western. The length of the compartment for the patient varies with the length of the carriage, usually from 17 feet to 19 feet and it usually contains a special couch which differs in some points with the various companies and carriages. The couch may be fixed or moveable, slung by special springs from the roof, &c. On some lines hooks are put in the roof so that a special mattress or hammock may be slung—such a carriage must be specially asked for as the generality of the invalid stock has no such requirement. Special straps anchor the mattress to the floor, limiting the oscillation. On certain lines the couch can be lifted and used as a stretcher to convey the invalid in and out of the saloon. When the couch is thus moveable it can be readily replaced by a bed which forms part of the regular furniture of an invalid saloon only upon the Great Central Railway. Many other lines—such as the Midland, the London and North-Western, the Great Western, the Great Southern and Western of Ireland, and others—will supply a bed where it is required. The Midland, the Great Western, and the South-Eastern and Chatham railways have their invalid couches slung by spiral springs from the roof and their movements restrained by leather straps (Figs. 2 and 3). Otherwise this arrangement, if it is required, must be specially asked for.

The doors of the saloon are usually of double width to enable the patient to be carried in or out upon the couch on which he has been brought to the station, so that he can either continue the journey on the same couch or be transferred to the couch in the saloon. By the first of these arrangements the least possible disturbance of the patient is necessary, as he need never be moved from his couch from the time of his departure till he arrives at his destination.

Besides the couch for the invalid another couch is sometimes present and is placed upon the opposite side of the carriage to that on which the former is placed. Three or four comfortable chairs are placed for the friends of the patient, of which some are fixed and some are moveable. Occasionally an invalid chair is supplied on which the patient can be wheeled about the compartment, such as to and from the lavatory. An invalid bed-table is sometimes provided. The saloon is well lighted by large windows, is well ventilated, and is upholstered in a style that leaves little to be desired. The carriages are warmed either by steam from the engine or by means of foot-warmers, the proper temperature being obtained in the carriage before the arrival of the patient. The latter method is the one most usually employed. The Midland and Great Western railways alone have any arrangement for the warming of food, &c., supplied in the carriage, a Bunsen stove being provided. Such an apparatus could be easily fitted on to the jet of any carriage lighted by gas, otherwise the attendants will have to bring their own apparatus. The Great Eastern Railway add a fifth compartment to their invalid carriage, which seats four friends and communicates directly with the patient's saloon. The composite invalid saloons of the Great Northern Railway, besides the ordinary four compartments for the invalid, the attendants, the luggage, and the lavatory, have an additional third-class compartment between the invalid and the luggage locker, which is isolated from the rest of the carriage.

The attendants' room is usually a second-class or third-class compartment which is connected by doors with the rest of the carriage, and is usually separated by another compartment from that of the invalid, and which is generally the luggage-van or the lavatory, but which of these it is varies considerably with the different lines. In the majority it is the lavatory, which may be entered through the doors from either the patient's room or the attendants' compartment. In this situation the lavatory may be used by all. The London and South-Western Railway are peculiar in placing the lavatory at the end of the carriage next the invalid (Fig. 4), giving a comparatively large compartment, 3 feet 7 inches in breadth, as compared with 2 feet 9 inches, with the water-closet on one

FIG. 1.



Invalid Saloon, Midland Railway, showing ordinary constitution and disposition of luggage locker and lavatory.

FIG. 1A.

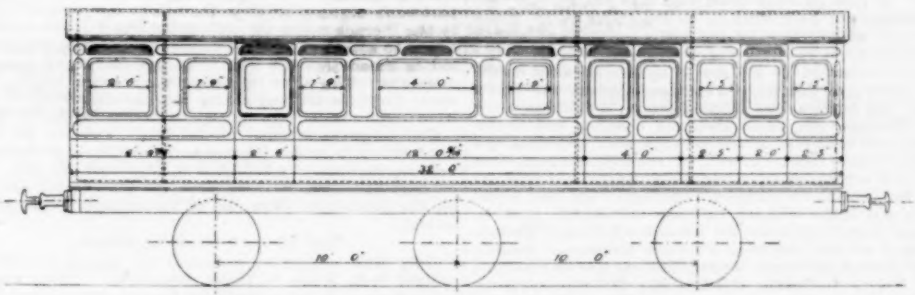
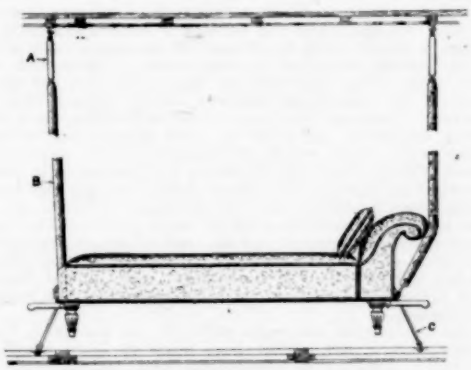


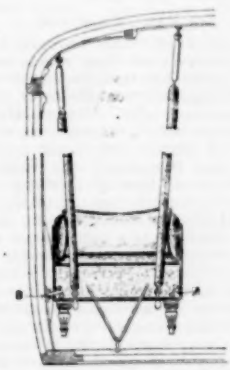
Diagram of the Invalid Railway Saloon, London and South-Western Railway.

FIG. 2.



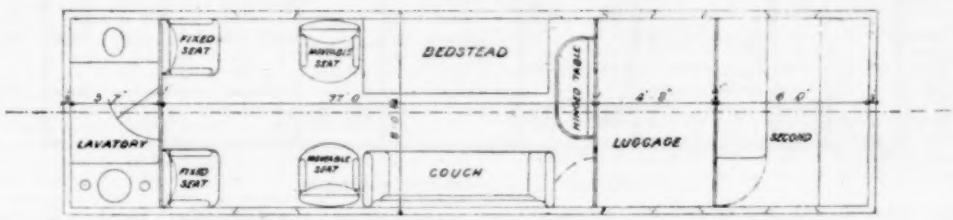
Invalid Saloon, South-Eastern and Chatham Railway, showing the method of slinging the invalid's couch.

FIG. 3.



Invalid Saloon, South-Eastern and Chatham Railway, showing method of restraining oscillation of couch.

FIG. 4.



Invalid Saloon, London and South-Western Railway, showing alternative disposition of lavatory and luggage locker, as compared with Fig. 1.

side of the carriage and a washing-basin on the other; but as a general rule the lavatory is, as we have said, between the attendants' and the invalid's compartments, whilst the luggage is placed at the end. This form is the most comfortable for all parties. The other will be most appreciated by the invalid and may be the more satisfactory upon long journeys.

The Great Western Railway have an invalid traffic as large as, if not larger than, that of the London and South-Western line. They offer to the public the finest and most modern invalid vehicle, which deserves a special description. The carriage is 45½ feet long and runs upon two four-wheeled frames which can rotate under the carriage, thus diminishing all jolting, &c. These frames are called "bogies." At one end is a compartment 18 feet long with a couch for the invalid specially slung upon springs and anchored to the floor; next to this comes a lavatory, 5 feet 9 inches long and 3 feet 7 inches wide, and then follow two compartments for friends and attendants, the final division of the carriage being a luggage locker. A passage runs down one side of the carriage. This carriage can be hooked on to a corridor train. These saloons are modifications of the family carriage and lead on naturally to the next division of this report.

The price charged for the use of an invalid saloon on the various lines is as follows. On the Great Central, the North-Eastern, the London and North-Western, the Midland, the Great Northern, the Caledonian, the Glasgow and South-Western, and the North British railways, four first-class and four third-class fares. It will be noticed, however, that there is a regulation clearance office charge which is the same for all these northern railways. On the Great Eastern and Great Western railways the charge is seven first-class fares; while on the Great Southern and Western Railway of Ireland, the Great Northern Railway of Ireland, and the London and South-Western Railway it is six first-class fares. The South-Eastern and Chatham Railway charge 1*s.* per mile with a minimum charge of 40*s.*, while on the London, Brighton, and South Coast line the rate is 9*d.* a mile with a minimum of 40*s.* The above prices represent the minimum charge and all passengers must pay first-class fares except servants who pay third.

THE FAMILY SALOON.

The managers of lines which have no special invalid rolling-stock, and of some of those which have, advise the use of a family saloon for invalids to travel in. On the big lines these carriages represent the acme of comfort that the railway companies can offer. The family saloon is much longer than the invalid saloon, ranging from 42 feet to 48 feet in length, it is much heavier, and is run upon four-wheeled bogies. A bogie is a framework with wheels upon which the carriages can move, thus diminishing jolts, &c., and adding greatly to the smooth running of the coach. There are three separate compartments containing four seats each. At one end of the carriage is a luggage-van and next to it is a comfortable lavatory about three feet in breadth. The compartment which follows is that which is best transformed, with bed or couch, for the invalid's use; it is eight feet long, just allowing room for a comfortable couch to be made up. Next the invalid's compartment is a vestibule containing four seats, followed by two saloons similar to the above and separated from each other by a second vestibule with a lavatory in it. The end compartment is for the servants (Fig. 5).

It can also be attached to the corridor train and so enable the passengers to communicate with the dining-car, but it must then be placed at one or other end of the train to avoid its being used as a passage by other people. A few of these cars contain a small stove which might be utilised for heating food, &c. The price for such a coach is the same as that for an invalid saloon—viz., usually four first-class and four third-class fares—and in it the London and North-Western Railway can take a patient from Torquay to the north of Scotland.

The Caledonian Railway Company offer invalid stock like that of their southern *confrères*, the London and North-Western Railway.

RESERVATION AND ALTERATION OF COMPARTMENTS.

On most lines less expensive modes of travel can be obtained, such as the engaging of a first-class or third-class carriage, which can then be made suitable for the invalid by means of putting boards and cushions between the seats. A lavatory carriage can almost always be obtained. The price for the reservation of a first-class compartment is usually that of four fares, or of a third-class compartment eight fares. By this means the patient can travel by the "crack" express trains to which most companies do not care to attach invalid coaches, as the train has to run fast and is timed so closely as not to allow for the pulling of extra weight. The Great Northern Railway charge six first-class fares if they have to run the carriage through to its destination.

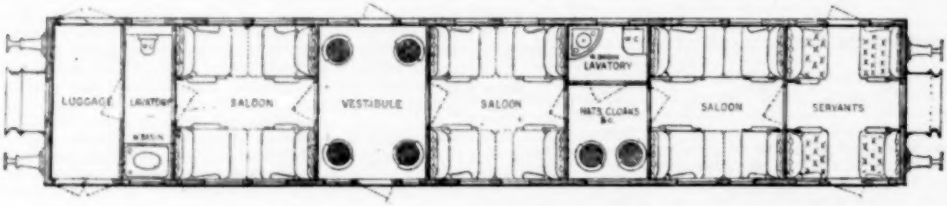
The cheapest method of invalid travel, and also the least comfortable, is to get the company to bridge over the space between the seats of a first-class or third-class carriage. The expense will then be two fares for the invalid and one for the attendant. The rest of the carriage is open to the public.

THE INVALID ROAD CARRIAGE.

Only three companies undertake the transference of the patient from house to house themselves. These are the Great Eastern Railway, the South-Eastern and Chatham Railway, and the London, Brighton, and South Coast Railway, all of which have special invalid road carriages built. In shape the vehicle is like an ordinary omnibus except that the driver's box is placed well in front and under it are the front pair of wheels. The body of the coach is carried on a single pair of large wheels and is swung by specially tested springs. On one side of the carriage is the invalid's couch, which is usually slung by springs; on the opposite side are a seat for the attendant, a water-closet, a basin, and a sink. The bridge that connects the driver's box and the body of the carriage is hollowed out to form a linen-drawer. There are two doors at the end of the carriage which enable the patient to be lifted straight out whilst lying on the couch and to be conveyed to the saloon or house (Fig. 6). Or if the journey is to be continued in the invalid road carriage it is placed upon a railway carriage truck where its wheels are fixed by means of blocks, &c., and to stop the oscillations leather bands are either fixed to some ironwork or passed over the roof of the carriage and the other ends fixed to the truck. In this way the carriage is tied tightly down with the springs tense. At the other end of the journey the carriage is detached and driven to its destination.

For the railway companies which do not undertake the transference of the patient from house to house Messrs. H. and T. Reading, of Ridinghouse-street, Langham-place,

FIG. 5.



Family Saloon, London and North-Western Railway.

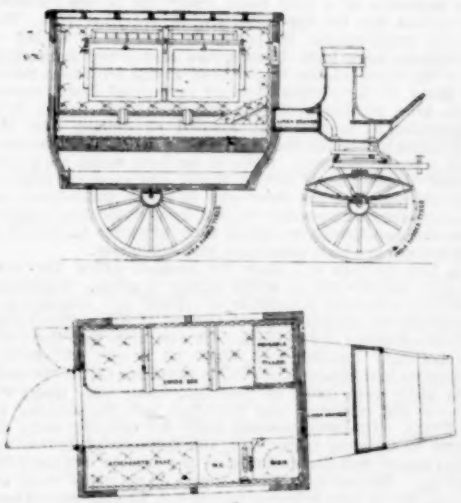
This variety of coach is of special value for long journeys on account of its smooth running, its equable temperature, which is obtained by steam heat from the engine, and its special lavatory for the invalid and a second one for others.

W., do the greater part of the traffic. They have two classes of vehicle for this method of travel. The first is the invalid's coach, which contains a spring-suspended couch and can seat two other people; and the second is the

invalid's omnibus which is much more roomy, containing accommodation for four other people, water-closet, basin, &c., and is mostly used for surgical cases. These carriages are transferred and fitted on to a railway carriage truck, and dealt with by the various railway companies just as has been described above. They are heated by means of foot-warmers.

The prices for the road-carriage method of travel vary somewhat with the different lines. On the South-Eastern and Chatham Railway the charge for the road carriage, when occupied, is 1*s.* 6*d.* per mile, and when it is empty 6*d.* per mile, the minimum charge being 50*s.*, a first-class fare for each attendant, and a fee of 10*s.* 6*d.* for the company's caretaker. This includes a road journey of not more than three miles at either end. An extra charge is made if the carriage is not returned in 24 hours. On the Great Eastern Railway the charge for the road carriage when occupied is 1*s.* 6*d.* per mile and a first-class fare for each attendant.

FIG. 6.



Invalid Road Carriage, Great Eastern Railway. This is fastened on to carriage-truck and so transported on the railway. In use on the Great Eastern Railway, South-Eastern and Chatham Railway, London, Brighton, and South Coast Railway, and on other lines by private firms.

The company do not state any charge for the truck returning empty, any fee for the caretaker, or any minimum charge. The horses are to be provided by the hirer. On the London, Brighton, and South Coast Railway the charge for the road carriage, when occupied, is 1*s.* 3*d.* per mile, and when it is empty 6*d.* per mile, the minimum charge being 50*s.*, first-class fares to be paid for all passengers. The contract includes three miles' drive at either end of the journey. They have the same rule as the South-Eastern and Chatham Railway as regards the retention of the carriage. The Great Northern Railway will undertake the transference of invalids from house to house by means of their omnibuses or by the St. John Ambulance Association. The Great Western Railway employ a private firm to move the patient from station to house and *vice versâ*. Messrs. H. and T. Reading charge one guinea for the first 10 miles and half a guinea for every further 10 miles, and 7*s.* 6*d.* as a fee for a special caretaker. Besides this there are the full charges of the railway company on which the patient travels.

It will be seen that travel by rail in an invalid road carriage or omnibus presents but few advantages. It allows of the minimum of disturbance to the patient which is its great advantage. The objections to it are that the carriage as compared with a saloon is smaller, darker, and not so well ventilated, also the water-closet pan cannot be conveniently cleansed during the journey. Again it is the most expensive method of special railway travel just as it is the least convenient. The disturbance of the invalid can be minimised by driving the patient in one of the vehicles, carrying him on the couch to the saloon, when the couch is deposited upon the springs and is removed with the patient to the carriage at the other end of the journey. In this way the least disturbance to the invalid is obtained together with the greatest comfort and convenience. The invalid may easily be brought to the saloon by means of a hand carriage or moveable couch, such as is supplied by Messrs. Reading, and carried to the saloon; the same couch can also be used in the invalid carriage sent to meet him at the other end of the journey. The method of using the hand carriage lessens the expense and enables the invalid to travel in the saloon instead of on a truck.

INVALID TRAFFIC.

The amount of invalid traffic upon the different railways varies considerably. The lines that serve the southern counties are naturally those which have the most traffic and with this in view the first application for information was made to the London and South-Western Railway. This company on the average convey from 600 to 700 invalids yearly, as they have the monopoly of such places as Bournemouth, Swanage, Weymouth, Bude, Sidmouth, &c., which figure represents a far higher list than other companies, except the Great Western Railway, can show. Yet looking at the matter from the cold-blooded point of view of the shareholder invalid traffic does not pay, though half a loaf is better than no bread. Competition for invalid traffic hardly occurs at all, as each line taps a certain number of health resorts and so forth. Hence there has been no great stimulus for special improvements and cultivation of this branch of travel; so long as satisfaction is given all that is necessary is done. Beyond this it would seem unfair to expect more from a company which is a mercantile organisation and not a philanthropic institution. The London and North-Western Railway have no favourite health resorts upon their line and are chiefly employed with through traffic and long journeys. Hence their advocacy of the adoption of the luxurious family saloon for invalid travel. The introduction of the use of such a vehicle inaugurates quite a new era and corresponds in this branch to the introduction of corridor trains, &c., for ordinary travel. The price is the same as for a more primitive invalid saloon. There are certainly one or two alterations which would have to be made to make the family saloon an ideal invalid vehicle. This company also state that this traffic is worthy of special attention and is increasing. The Midland Railway carry over 400 patients in special saloons yearly, and, like the North-Western Railway, chiefly do through traffic. The Great Northern Railway Company of Ireland serve Rostrevor, the "Riviera" of Ireland, and supply an invalid chair for the conveyance of the patient from the station entrance to and from the carriage. The Great Southern and Western Railway of Ireland are of the opinion that this traffic is sufficient to warrant special cultivation; the saloons are used 40 times yearly. The North-Eastern Railway use their special saloons over 200 times a year and run them chiefly to Bridlington, Filey, Harrogate, Scarborough, and Whitby. The Great Eastern Railway have no favourite resorts upon their system and utilise their special carriages over 100 times yearly and their invalid road car only 40 times. The South-Eastern and Chatham Railway report that this traffic is inconsiderable and although they offer special facilities it is insufficient to warrant special cultivation. On the Great Central Railway the traffic is small, but as they have recently constructed special saloons containing beds it cannot be unworthy of their attention. The Great Northern Railway's invalid traffic varies so much that it is difficult to express definite opinions as to its value. The London, Brighton, and South Coast Railway convey most of their invalid traffic to Brighton. Of the Scotch lines the Caledonian Railway serve principally Moffat and the Bridge of Allan; the Highland and Glasgow and South-Western railways do but little; the North British Railway send to North Berwick, Melrose, Peebles, St. Andrews, Comrie, Ballater, &c. The Great Western Railway have a very considerable invalid traffic from such health resorts as Torquay and Malvern, and as they, of all the companies, have catered most of all for the invalid, this company must be looked to for any future improvements.

In conclusion, thanks must be expressed to the general managers and superintendents of the line of the various railway companies for their kindness and help in drawing out this report.

REPORT OF THE MEDICAL OFFICER TO THE LOCAL GOVERNMENT BOARD, 1899-1900.

III.[1]

IN the previous notices reference has been made to the precautions which were taken against the spread of the plague and to the auxiliary scientific investigations which were undertaken by the medical officers of the Local Government Board. The ordinary routine work of the medical department of the Board remains for consideration. This work may conveniently be divided into three departments: (1) the precautions taken for the prevention of small-pox—that is to say, the work done in connexion with vaccination; (2) the local inquiries which are made in the case of insanitary areas and of towns visited by infectious diseases; and (3) the statistics compiled of the number of cases of infectious diseases and of the mortality which occurs from them. The figures and the statistical details in regard to the notified attacks and the registered deaths from certain infectious diseases in 93 urban sanitary districts in England and Wales are contained in Appendix A, No. 12. Information of a like character which is published for the several sanitary districts of the metropolis has been given in the columns of THE LANCET week by week. Appendix A, No. 13, contains tables prepared (under the direction of the late Sir Richard Thorne) in regard to the incidence of infectious disease in urban districts and in the metropolitan areas for the five-yearly period 1893-97. The report by the vaccination officers (Appendix A, No. 1) refers to children whose births were registered during the year 1897. From the tables given it appears that in the case of 929,518 births 62·4 per cent. were successfully vaccinated; 11·2 per cent. died unvaccinated; 0·3 per cent. were said to be insusceptible to vaccination; and 3·4 per cent. were not vaccinated because certificates were obtained (under the Act of 1898) that the guardians of the children were afflicted by conscientious objections to the practice. Concerning the remaining 22·7 per cent. accurate information was wanting; included in this remainder are a number returned as "postponed," "removed," and "not to be traced." This percentage of defaulting or unreturned cases is larger than that in any record which has previously been made for England and Wales. In the case of London the number in default was no less than 29·1 per cent., and for the rest of the country it was 21·6 per cent. Reports on the inspection of public vaccination are given in Appendix A, No. 2, from which it appears that 1083 public vaccinators out of a total number of 1461 were recommended for award under the provisions of the Vaccination Act of 1867. During the year 1898 nearly 500,000 capillary tubes containing glycerinated calf lymph were sent to public vaccinators. Appendix A, No. 4, contains an account of the animal vaccine establishment at which during the year 1899-1900 2614 primary vaccinations were performed. The arrangements at the animal vaccine establishment which were made in the first place at the Jenner Institute for Preventive Medicine under the National Vaccine establishment proved inadequate, and at the close of the year 1899-1900 arrangements were being made for setting up several similar establishments on a wider and more satisfactory basis. Dr. Blaxall reports on the operation of the glycerinated lymph establishment which is under the management of the Local Government Board, and relates the difficulties which occurred in providing a sufficient amount of lymph. During the year 269 calves were sent from the department and all of these were examined by a veterinary surgeon after they were slaughtered and were found to be free from disease. Two others which seemed to be in health during the course of vaccination were found by the veterinary surgeon to be suffering from tuberculous disease. The lymph which had been obtained from these calves was at once destroyed; none of it was issued. It is not stated in the report that any examination was made of this lymph before its destruction.

Of all the work which is done by the medical officers of the Local Government Board certainly none is more important than the investigations which are made in regard to the incidence of disease in particular places and the tracing out of the conditions under which outbreaks of preventable disease occur. The amount of work of this kind which is done is enormous. The staff of the medical department have in the course of their duties to confer with the representatives of sanitary authorities in regard to the needs of their districts for the provision of by-laws of sanitary import; they have to consider proposals which are made for the provision of hospitals and in regard to the suitability of the sites proposed, and they advise also as to the best plan for the arrangement of the hospital buildings on the sites selected. During the year under review formal inquiries have been held by the medical inspectors as to the provision of hospital accommodation in over 60 towns and rural districts. Two local inquiries were held as to the provision of disinfectors and one as to the provision of a mortuary. In seven instances local investigations were made in regard to the adaptation to local needs of by-laws of sanitary import. Local inquiries were also held as to the best method for the disposal of sewage in various places, as to the provision of water-supplies, and in one case as to the formation of a joint board under the Rivers Pollution Prevention Act for the protection of the river Dee. The special requirements of particular parishes in regard to scavenging have been investigated and many inspections as to the cause of the incidence of disease have been made. In many of these cases facts of very great local interest have been obtained. Advice has been given to the local authorities as to the best method of getting over the difficulties into which they have fallen either from carelessness or from ignorance. Some of the facts which are put on record in the case of certain towns and rural districts are very striking and the clear way in which the reports are made renders it impossible for the local authorities to plead that the deficiencies to which their attention is called in the report have been mentioned with ambiguity.

A few samples will show the method which has been adopted and the way in which advice is given. Aldershot, with an estimated population of 16,500 and containing a camp with an estimated population of 13,894, suffered from severe epidemics of diphtheria. It was found that there was no isolation hospital and that no proper disinfecting apparatus had been established by the urban district council. The wells were liable to pollution, there were many old sewers, the sewerage was imperfect and the flushing insufficient. The arrangements made for carrying away the storm water were inadequate, the drainage of houses was often faulty, and the treatment of the sewage was not satisfactory. Houses were often damp, back yards were not paved, the by-laws referring to common lodging-houses were flagrantly neglected, animals were kept so as to become nuisances, and regulations as to cowsheds were not enforced.

Dr. H. T. Bulstrode's report on the sanitary condition of the borough of Windsor and upon the character of the town council's administration is of great interest. The past history of the management of this town has, as readers of THE LANCET know, been most unsatisfactory. As long ago as the year 1885 the reports of our Special Commissioner on the poorer parts of the town appeared in our columns. A deputation of the town council afterwards waited on the Right Hon. C. T. Ritchie (in September, 1886) when an inspector was appointed to investigate the condition of the borough. As the result of this inquiry certain specific recommendations were made. Some years later (in 1890) Dr. H. Airy and Mr. Arnold Taylor were appointed by the Local Government Board to report on what had been done in the town and what still remained undone.[2] Public attention was again forcibly called to the state of the town in July, 1899, and Dr. Bulstrode was deputed to make an inquiry, the results of which have already been published in our columns.[3]

A report on enteric fever in the city of Chichester by Dr. T. Thomson and Colonel J. T. Marsh is of great interest and is worthy of careful study. We have not space to give even a summary of this report. It must suffice to say that it shows evidence of the greatest care in its production and that it is illustrated by a series of charts and maps. In the course of the inquiry the investigators were led to consider the possibility that the frequent recurrences of enteric fever at Chichester might be due to the pollution of the soil, and

[1] Nos. I. and II. were published in THE LANCET of June 15th (p. 1705) and 22nd (p. 1779), 1901, respectively.

[2] This report is dated Jan. 23rd, 1900.

[3] THE LANCET, Dec. 1st, 1900, p. 1591, 1607.

at their suggestion a bacteriological examination was undertaken. A few samples only were experimented upon by Dr. Houston, to whom the research was intrusted, and the results were negative.

One of the most thorough, exhaustive, and convincing reports in the Supplement is that by Dr. G. S. Buchanan upon epidemic enteric fever in the port of Falmouth. It is a model of what such a report should be and it is to be hoped that this research will be of use to the people of Falmouth, a town of great natural charm which has been rendered insanitary by the neglect and carelessness of its governing authority. It is to be feared that too often very little importance is attached to reports which are made at great trouble primarily for the sake of local authorities. The reports necessarily are not published directly they are made, the book in which they are contained is one which has not a very large circulation, and there are doubtless many people in Windsor, in Chichester, and in Falmouth who, although they are naturally interested in the healthiness of the places in which they live, may be still unaware that a very large amount of information which deeply concerns their welfare has been lately published.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, QUEEN SQUARE.

REPORT OF THE COMMITTEE OF INQUIRY.

THOSE of our readers who have followed the course of affairs at the National Hospital for the Paralysed and Epileptic, Queen-square, will be interested to know the salient features of the report and findings of the committee of inquiry which we are now enabled to lay before them. The whole report is too long to quote, so we are unable to do more than refer to the chief points. We may first recall the fact that at a special general meeting of governors and members of the hospital on March 23rd, 1901, a resolution was passed "that a full and independent inquiry be at once instituted into the statement issued by the medical staff in May, 1900, the facility of inter-communication between the medical staff and the board, including the demand of the former for direct representation on the Board; the position, function, and acts of the secretary-director, and the constitution, rules, and management of the hospital generally." The "committee of selection," chosen from governors of, and subscribers to, the hospital, elected as the committee of inquiry the following gentlemen, the chief points of whose report and findings we append: Sir Edward Fry, Kt. (chairman), the Right Hon. the Lord Wolverton, Sir W. W. Karslake, Kt., K.C., Mr. Timothy Holmes, F.R.C.S. Eng., and Mr. Cecil Henry Russell.

The allegations of the staff with regard to unsatisfactory food and insufficient supply of linen are found to be justified, while the nursing staff is declared to be inadequate. The draw-sheets are washed in the hospital laundry, where only one woman is employed, and consequently the work is inefficiently done. But the most important finding of these gentlemen, as involving a most radical change in the method of management of the hospital, is to be found in paragraph 79, in which the opinion is expressed "that the office of general director in the hospital should be abolished and that the hospital should be carried on under one or other of the following schemes of government: (1) that the secretary should be entrusted with the ordinary duties of a secretary and that in addition he should be the chief executive officer of the Board of Management, but should be restrained from interfering in any way with the lady superintendent and the members of the medical and resident staffs and with all persons and things placed under their control, and that the house physician, lady superintendent, and secretary should be required in all cases of difficulty to consult, so far as possible, the chairman or vice-chairman of the Board and to act in accordance with his advice; (2) that a resident medical superintendent should be appointed as a permanent official who should not only discharge the duties of the senior house physician, but should also be the responsible and resident head of the whole institution under the Board of Management." It will be seen that these recommendations if carried out will entirely remove the *fons et origo mali* to which the troubles that have arisen were all directly due—viz., the paramount and undesirable position of the secretary-director. Another important opinion expressed is that "the direct representation of the medical staff on the Board of Management would beyond all other methods secure the best and most satisfactory means of inter-communication between the medical staff and the Board, and that it would be to the great and permanent benefit of the hospital." The report goes with great detail into questions of finance, of the position of matrons, of the secretary-director, of payment by out-patients, and other matters, and throughout shows such care and good judgment that all concerned with the welfare of the institution must rest satisfied that a future based on the lines here laid down will be free from the frequent troubles of the past.

THE JUBILEE OF THE ISLINGTON MEDICAL SOCIETY.

WE regret that the pressure on our space caused by the meeting of the General Medical Council made it impossible for us to give a full report of the proceedings of the dinner to celebrate the Jubilee of the Islington Medical Society. The speech of the President gives the interesting history of the society and we have much pleasure in finding room for it. In proposing the toast of the evening, "Success to the Islington Medical Society,"

Dr. J. G. GLOVER said: The reasons which induce men to form themselves into societies or clubs are very various and sometimes curious. Addison with his usual humour has descanted on this point. Probably there is no better reason for combining to form a society than community of profession. And of all professions in which the sociable principle is useful that of medicine stands foremost. I have myself been consistent in this matter. For many years I have been a member of a local medical society, of the one whose jubilee we are celebrating to-night, and of a central society—the Clinical Society of London—I have been a pretty regular attender and have always found myself amply repaid for the trouble and inconvenience of attending either. The anxieties of practice and the worry of exceptional cases are often much mitigated by an hour spent in the society of men of the same profession having similar anxieties and cases. Unfavourable or suspicious thoughts of our neighbours are often corrected by such intercourse. And when great epidemics rage and a point of contact is needed between the members of the medical profession and the medical representatives of the local sanitary authority, there is no point more obvious or more available than that supplied by the meeting of the local medical society. It was doubtless with some such thoughts and views that a number of medical men met more than 50 years ago—for it was in 1850—in the house of Mr. Clifton, senior, 38, Cross-street—a house which for a generation afterwards was well known to the profession, any member of which could be sure of receiving from its proprietor advice or help in any emergency or difficulty of practice. On that memorable night in 1850 fourteen gentlemen were present. Mr. Clifton, senior, whose diploma dated back to 1807, presided. The others, as the founders, deserve to be remembered on this occasion. One of them—Mr. J. T. Jackson—happily still lives and is in practice, and might possibly have been with us to-night had he not been contending with his ninth attack of influenza. The rest were Messrs. Burrows, Camplin, Semple, Marston, Fullerton, Cattlin, Dreury, McCrea, Bradley, Bateman, Allan, and N. H. Clifton. These are much respected names in Islington—and within a very short time others were added, notably the late Mr. Kesteven, Dr. Stokes, and the late Dr. Ballard, who afterwards did most admirable service in the medical department of the Local Government Board and enjoyed the high respect and affection of his chief, Sir John Simon. These gentlemen were the founders of the society which still survives and their names are associated by us with all that is honourable and useful in practice. Their example and their spirit still remain with us. They little thought when they met in that room in Cross-street in February, 1850, that 50 years afterwards so large and goodly a company would gather together to celebrate the occasion and to remember them with respect and gratitude. They have disappeared; their work remains. It is an old story.

> "We men must vanish; be it so;
> Enough if something from our hands have power
> To live, and grow, and serve the future hour."

I should be wanting in my duty if I did not carefully enumerate the names of the five successive secretaries who have served the society and to whom it is under a great debt of gratitude—viz., Mr. N. H. Clifton, Mr. Keele, Dr. A. Reid, Dr. H. Frazer Stokes, and, now, Mr. David Keele. I need not say more to commend the toast of the evening, "Success to the Islington Medical Society." It has been a great bond of intercourse, a great source of help, and a means of friendship to its members; meeting at each other's houses; indulging in nothing stronger than tea and coffee; conducting its discussions mostly in a conversational way save on those many occasions when the society has been favoured with addresses on important subjects from consultants, metropolitan or provincial. No one in the profession is so secure in his position that he can be sure of not needing the help and sympathy of such a society. The good of medical men may be evil spoken of; their practice may be misunderstood and their fair name may have to be vindicated. The society has not been without its uses in that respect. I should be ungrateful if I did not give a somewhat personal illustration of its uses in other circumstances. Some years ago a somewhat ambitious though humble member of the profession was desirous of being elected to represent the general practitioners of England and Wales on the General Medical Council. If a man like my friend on the right, Sir William Turner, wanted such a post his name would be recognised throughout the country. But for a general practitioner in a suburb of London the problem was not so easy. I resolved to appeal in the first instance to my neighbours and to the members of this society. I felt that if I could not have their support I was not worthy of election by the profession. Dr. Stokes, whom we all miss much to-night, became my chairman. Mr. Keele and the honorary secretaries spared neither time nor trouble in my behalf, all my neighbours gave me a good "send-off," and for 15 years I have been in the honoured position of Direct Representative, which I feel I owe not a little to the help of this society. I propose to you its prosperity, and can wish no better for the society and the district than that the traditions and the spirit of the Cliftons and Cattlins of Islington may long survive.

THE INCORPORATED MEDICAL PRACTITIONERS' ASSOCIATION.

THE tenth annual meeting of the above association was held at the Holborn Restaurant, London, W.C., on June 20th to receive the report of the central council and to elect officers for the ensuing 12 months. The report, which was unanimously adopted, stated that during the last 12 months the association had steadily grown in usefulness and influence, whilst the financial position was now more satisfactory than it had been for some years past. As in former years the association through its council and individual members, had strenuously and successfully opposed the Bill for the registration of midwives. Reference was made to the club and medical aid question and members were recommended to combine with their medical colleagues in establishing local centres of provident medical aid to be absolutely independent of lay control. The report was unanimously adopted. The election of officers was then proceeded with and Dr. Henry Blake (Great Yarmouth), on the nomination of the Great Yarmouth branch of the association, was unanimously elected president for the ensuing 12 months. Mr. J. S. E. Cotman, the retiring President, was elected a life vice-president. Dr. C. T. Aveling having served as a member of the central council for three years was added to the line of vice-presidents. The following names were added to the list of members forming the General Council:—Mr. A. Phillips Hills, Dr. A. L. Mathieson (Sheffield), Mr. A. H. Moxon (Great Yarmouth), Mr. J. C. Smith, and Mr. R. F. Tomlin (Wood Green). Mr. F. Greave was re-elected honorary treasurer, Mr. George Brown honorary secretary, and Mr. J. S. Cotman general secretary. At the conclusion of the meeting dinner was served in the Gordon Salon, the newly-elected President, Dr. Blake, being in the chair. About 40 members and guests were present, among whom were Dr. H. Macnaughton Jones, Dr. F. J. Allan, Dr. J. Pollock Simpson, Dr. Frederick Spicer, Mr. George Jackson, (Plymouth), Mr. G. H. Broadbent (Manchester), and Dr. Rivers Willson (Oxford). Replying to the toast of the evening, "The Incorporated Medical Practitioners' Association," which was proposed by Mr. J. S. E. Cotman, the President said he was gratified to learn from his predecessor that the association was in a thoroughly satisfactory state. Like the late president, he felt that as long as they kept to their published programme the association must progress. Referring to the club question with which they had had to deal at Great Yarmouth Dr. Blake said that the local practitioners had lost practically all their clubs through insisting on the adoption of a wage-limit and class-limit for members. Their ruin was foretold, but none of them had been ruined, indeed they rejoiced in their freedom from clubs. Ruin was, however, threatening the other side. They—the late club medical officers—were more than ever convinced that a wage-limit and class-limit should be insisted upon, and they now realised that even properly regulated clubs are not necessary for the support of a general practice. Further, he would say that a practice which was improved by a women and children's club must be a poor practice indeed. Referring to the difference between the Conjoint Board for England and the General Medical Council Dr. Blake said his sympathies were with the Conjoint Board. He regarded the action of the Council in forcing boys to go to London to study science when they might spend the year to better advantage at some of the excellent schools recognised by the Conjoint Board as prejudicial to the interests of the profession. In conclusion, he would give the assurance that the officers of the association would during the ensuing year do all they possibly could to promote the interests of the profession. The toast of "The Visitors," proposed by Mr. Joseph Smith, was responded to by Dr. Macnaughton Jones, and Mr. Jackson responded to the toast of the "Provincial Members," which was proposed by Mr. Brown.

PLAGUE IN EGYPT.

ACCORDING to the system which has obtained in Egypt ever since an English element was introduced into the sanitary department, the greatest possible publicity is given to all outbreaks of infectious disease. Formerly concealment used to be the main object, but now the public receive warning in due time and are consequently able to adopt precautionary measures with a fair prospect of success. As regards plague it is the present custom of the head of the sanitary department to submit weekly reports during the continuance of each epidemic of the disease to the Minister of the Interior, for such action as that official and his adviser may deem desirable. The first of these reports for the current year has been forwarded to us. It is dated "Cairo, June 9th," and covers four type-written pages of foolscap. In the following summary the chief points will be found briefly stated.

On June 1st two suspicious cases were reported at headquarters from Zagazig, which is one of the most important towns in the Delta and has a population of 35,715, including 1572 foreigners. The next day Major C. Garner, R.A.M.C., and Dr. Bitter, the chief bacteriologist of the department, proceeded to the spot, the former to take "immediate measures to isolate the sick, keep all contacts under control, and thoroughly disinfect the houses and their neighbourhood where the cases had been discovered"; and the latter to make a bacteriological examination of the affected cases. On the following morning Dr. Bitter pronounced the disease to be plague and to the same cause he also ascribed a death which had occurred out of the hospital. On June 4th and following days several more patients were isolated in the infectious hospitals which Major Garner had extemporised for Europeans and natives respectively, but happily most of the cases were of a mild character. The total number of persons affected is not stated, but with regard to the etiology of the outbreak Mr. H. H. Pinching, the present head of the sanitary department, who himself visited Zagazig on June 6th, has no doubt that the disease must have existed some time in the town and remained unrecognised owing to its subtle nature and to the extreme difficulty which observers who have had no previous experience of plague must find in diagnosing it. "I cannot help thinking

this is almost unavoidable," continues Mr. Pinching, and he also has grave doubts whether the channel of communication through which the infection was carried to the town of Zagazig will ever be discovered. The place is in constant communication with Port Said, where there was plague last year, and the Greeks and Jews among whom the disease occurred frequently travel to and from Alexandria with all kinds of merchandise.

On June 2nd a suspicious case was signalled from Minieh, which is a considerable town situated in Middle Egypt and having a population of 20,404, of whom not more than 280 are foreigners. Dr. Bitter and Dr. H. C. Goodman proceeded there on June 3rd and found a young man, a native, about 25 years of age, suffering from suspicious symptoms. The case having been bacteriologically diagnosed as plague, measures similar to those at Zagazig were promptly taken, and up to the date of the report no further cases had been discovered. There was, it is true, an old woman, a Copt, whom the local inspector thought presented symptoms resembling those of plague, but when at last she was found and examined the bacteriological results were negative. As soon as the relatives of this patient heard of the coming of the officials from Cairo they were stricken with unreasoning terror and concealed the poor creature in some remote oubliette, whence it was only after a lengthened search that Dr. Goodman was able to rescue her. All efforts to trace the source of the infection remained fruitless. Some 16 days before the young man had been at a fair in the vicinity, and according to the local sanitary inspector it was on his return that he first fell ill.

On June 6th a native, about 25 years of age, was observed to be suffering from marked symptoms of plague at Mansourah, which is a large town in the delta standing on the Phatnitic branch of the Nile with about 35,000 inhabitants, including 1639 foreigners. Graham Bey, who examined the case bacteriologically, pronounced it to be one of plague, and the man subsequently died. It was ascertained that he had arrived at Mansourah on June 5th, having left Zagazig three days previously. All the customary sanitary measures were put in force, and up to June 9th no further outbreak had been reported.

The following case, the last on the list, is incomplete, for it is not stated what punishment, if any, was meted out to the inhuman clerk. On June 7th the corpse of a Soudanese boy who had died from plague was found in the closed house of a clerk employed in the Parquet at Zagazig. When this person and his family found their servant "*in extremis* they left him in the house to die by himself, locked the door, and all fled" to Kafr-el-Zayat, which is another Deltaic town situated on the Canopic branch of the Nile. This Government clerk, who must have been a man of some education, knew perfectly well that his servant was suffering from a disease which the sanitary officials were doing their utmost to subdue, and yet he "in no way notified the case but left the wretched boy to die in a most heartless manner, and did his best to infect a town which up to the present has remained immune."

In conclusion Mr. Pinching says: "I think it my duty to point out to your Excellency that I consider the position of the country with regard to the probability of the disease assuming an epidemic form is more serious than it has been for the last two years." The head of the Egyptian sanitary department bases this important warning on the fact that several towns far apart from each other are known to have been contaminated, as well as on the probability that other intermediate towns and villages must have likewise become infected without information to that effect reaching him. "Happily, the general health of the country is at present good, and the mortality in general, and in the towns infected, low."

THE NEW WING AT ST. THOMAS'S HOSPITAL.

ON June 20th Lord Lister opened a new wing at St. Thomas's Hospital. The building consists of two operating theatres with anæsthetic rooms, a children's ward, and various rooms for staff, assistants, store room, &c. The cost of these additions to the accommodation of the hospital is about £20,000.

The special points to be noticed with regard to the theatres are the marble auditoriums of three rows only; the rounding off of all angles to prevent the collection of dust; the sterilisation of instruments under the surgeon's eye in the theatres; provision for purifying soiled clothes, and mackintoshes by steam; and the sterilisation of instruments, dressings, ligatures, &c., solely by means of heat. Lighting is effected by means of a window in the roof and by electricity. All persons engaged in the operation on the floor of the theatre will wear sterilised overalls and clean rubber boots which are only to be used in the theatre. The lower 6–7 feet of the walls are of marmorite slabs and the upper parts are of white enamel. The passage outside the theatre is forbidden to all except operators and assistants.

The children's ward is prettily decorated with Doulton ware panels in shades of pink, blue, and green, illustrating fairy tales and nursery rhymes. These tiles are the gift of Mr. S. G. Holland, one of the governors of the hospital, in memory of his daughter Lilian. Outside the children's ward, which contains 15 cots, there is a balcony about nine feet wide covered by a sloping roof. The view of the river Thames and the Houses of Parliament is, however, unfortunately obstructed from this balcony by the inelegant roof of the nurses' dining room, and it is to be hoped that it is not yet too late to remedy a decided fault.

The other rooms include a staff room (apart from the theatre) where tea will be served to the visiting staff, an anæsthetic recovery room next to the lift, and store-rooms. The ventilation of the block is accomplished by means of the Plenum system. The air is cleaned by three screens of cocoanut matting over which water is trickling continuously. Between each screen and outside them are coils of pipes for heating or cooling the air which is driven by a fan worked by a two-horse dynamo.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6333 births and 3301 deaths were registered during the week ending June 22nd. The annual rate of mortality in these towns, which had been 16·3, 15·2, and 14·5 per 1000 in the three preceding weeks, rose again to 15·0 per 1000 last week. In London the death-rate was 13·8 per 1000, while it averaged 15·8 in the 32 large provincial towns. The lowest death-rates in these towns were 8·0 in Brighton, 10·7 in Norwich and in Portsmouth, 10·8 in Croydon, and 11·5 in Huddersfield; the highest rates were 18·3 in Manchester, 18·4 in Sunderland, 18·8 in Halifax, and 21·1 in Liverpool. The 3301 deaths in these towns last week included 356 which were referred to the principal zymotic diseases, against 320 and 357 in the three preceding weeks; of these 101 resulted from measles, 77 from diarrhœal diseases, 68 from whooping-cough, 59 from diphtheria, 37 from scarlet fever, 13 from "fever" (principally enteric), and one from small-pox. No death from any of these diseases was registered last week in Derby or in Burnley; in the other towns they caused the lowest death-rates in Croydon, Norwich, Blackburn, and Huddersfield, and the highest rates in West Ham, Bolton, Salford, Halifax, and Hull. The greatest proportional mortality from measles occurred in West Ham, Bolton, and Hull; from whooping-cough in Plymouth, Sunderland, and Newcastle; and from diarrhœal diseases in Wolverhampton, Liverpool, and Bolton. The mortality both from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 59 deaths from diphtheria included 18 in London, five in Sheffield, four in Salford, and four in Halifax. One fatal case of small-pox was registered in Liverpool, but not one in any other of the 33 large towns; and only one small-pox patient was under treatment on Saturday last, June 22nd, in the Metropolitan Asylums hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 2707, against numbers increasing from 1522 to 2594 on the eight preceding Saturdays; 368 new cases were admitted during the week, against 317, 314, and 323 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 240, 187, and 159 in the three preceding weeks, further declined last week to 150, and were 53

below the corrected weekly average. The causes of 33, or 1·0 per cent., of the deaths in the 33 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Manchester, Bradford, Newcastle, and in 14 other smaller towns; the largest proportions of uncertified deaths were registered in Portsmouth, Norwich, Liverpool, and Gateshead.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined from 20·7 to 16·9 per 1000 in the four preceding weeks, rose again to 18·6 per 1000 during the week ending June 22nd, and showed an excess of 3·6 per 1000 over the mean death-rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 14·1 in Leith and 14·5 in Greenock to 18·5 in Edinburgh and 19·9 in Glasgow. The 592 deaths in these towns included 44 which were referred to whooping-cough, 25 to measles, 13 to diarrhœa, eight to scarlet fever, three to diphtheria, three to "fever," and one to small-pox. In all, 97 deaths resulted from these principal zymotic diseases last week, against 102 and 75 in the two preceding weeks. These 97 deaths were equal to an annual rate of 3·0 per 1000, which was 1·4 above the zymotic death-rate during the same period in the 33 large English towns. The fatal cases of whooping-cough, which had been 48 and 32 in the two preceding weeks, rose again last week to 44, of which 24 occurred in Glasgow, 12 in Edinburgh, four in Leith, two in Dundee, and two in Greenock. The deaths from measles, which had been 21 and 17 in the two preceding weeks, rose again to 25 last week, and included 15 in Glasgow, three in Edinburgh, three in Dundee, and three in Leith. The fatal cases of diarrhœa, which had declined from 30 to 17 in the four preceding weeks, further decreased last week to 13, of which eight were registered in Glasgow and three in Paisley. The deaths from scarlet fever, which had been one and three in the two preceding weeks, further rose to eight last week, and included five in Glasgow. The three fatal cases of diphtheria corresponded with the number in the preceding week, and included two in Edinburgh. The deaths referred to different forms of "fever," which had been six and three in the two preceding weeks, were again three last week, of which two were recorded in Glasgow, where the fatal case of small-pox also occurred. The deaths referred to diseases of the respiratory organs in these towns, which had been 98 and 101 in the two preceding weeks, declined again last week to 92, but showed a slight excess over the number in the corresponding period of last year. The causes of 32, or more than 5 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The annual rate of mortality in Dublin, which had been 20·0 and 19·6 per 1000 in the two preceding weeks, rose again to 20·2 during the week ending June 22nd. During the past four weeks the death-rate has averaged 20·3 per 1000, the rate during the same period being 14·3 in London and 19·5 in Edinburgh. The 183 deaths of persons belonging to Dublin registered during the week under notice were four in excess of the number in the preceding week, and included 10 which were referred to the principal zymotic diseases, against five, nine, and eight in the three preceding weeks; of these, three were referred to whooping-cough, three to diarrhœa, two to "fever," one to scarlet fever, and one to diphtheria. These 10 deaths were equal to an annual rate of 1·4 per 1000, the zymotic death-rate in London also being 1·4 per 1000, while in Edinburgh it was 2·9 per 1000. The fatal cases of whooping-cough, which had been five and three in the two preceding weeks, were again three last week. The deaths from diarrhœa, which had been two and four in the two preceding weeks, declined again last week to three. The 183 deaths in Dublin last week included 17 of children under one year of age and 38 of persons aged upwards of 60 years; the deaths of infants showed a marked decrease from the number in the preceding week, while the deaths of elderly persons had only slightly declined. Nine inquest cases and seven deaths from violence were registered, and 57, or more than three-eighths, of the deaths occurred in public institutions. The causes of eight, or more than 5 per cent., of the deaths in Dublin last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

Deputy Inspector-General of Hospitals and Fleets Robert Grant has been promoted to the rank of Inspector-General of Hospitals and Fleets in His Majesty's Fleet.

The following appointments are notified: Staff Surgeons: E. Corcoran to the *Magdala* and W. G. K. Barnes to the *Resolution*. Surgeons: J. F. M. McDougall to the *Harrier* and R. M. Richards to the *Wildfire*.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel William Wippell Pope retires on retired pay. Civil Surgeon Richard Chapman Wilson to be Lieutenant. Lieutenant P. H. Henderson is attached to the Station Hospital, Poona, for duty. Lieutenant-Colonel A. Young is selected for duty at Perth. Captain C. B. Lawson is posted to the Station Hospital, Western Heights, Dover, for duty. Major C. R. Elliott is appointed Sanitary Officer, Bombay Command. Lieutenant C. R. L. Ronayne, attached to the Station Hospital, Poona, proceeds to Ahmednagar for duty at the Station Hospital there. Captain C. T. Samman proceeds to Woolwich for duty. Lieutenant-Colonel J. Daniel Crowe, A.M.S. (retired), has been appointed to the medical charge of troops at Weymouth.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant H. L. de Legh to be Surgeon-Captain; Surgeon-Captain T. F. Dewar to be Surgeon-Major.

VOLUNTEER MEDICAL STAFF CORPS.

The Glasgow Companies: Surgeon-Lieutenant-Colonel Bruce Goff, retired, late 2nd Volunteer Battalion the Cameronians (Scottish Rifles) to be Honorary Commander.

IMPERIAL YEOMANRY.

Unattached: Temporary Captain F. A. Hadley resigns his commission.

VOLUNTEER CORPS.

Rifle: 2nd Volunteer Battalion the Queen's (Royal West Surrey Regiment: Captain and Honorary Major Francis Rutherford Russell, retired, to be Surgeon-Major. 2nd Volunteer Battalion the King's Own (Royal Lancaster Regiment): Bertram Whewell Hogarth to be Surgeon-Lieutenant. 1st Volunteer Battalion the King's (Liverpool Regiment): Surgeon-Lieutenant K. W. Monsarrat to be Surgeon-Captain. 1st Volunteer Battalion the Duke of Cornwall's Light Infantry: Francis Chown to be Surgeon-Lieutenant. 1st Cinque Ports: Surgeon-Lieutenant H. J. Holman to be Surgeon-Captain. 4th (Nottinghamshire) Volunteer Battalion the Sherwood Foresters (Derbyshire Regiment): Surgeon-Lieutenant W. T. Crawford to be Surgeon-Captain. 2nd Volunteer Battalion the Manchester Regiment: Surgeon-Lieutenant F. H. Westmacott to be Surgeon-Captain. 2nd Volunteer Battalion the Durham Light Infantry: Thomas Hillhouse Livingstone to be Surgeon-Lieutenant. 2nd (Renfrewshire) Volunteer Battalion Princess Louise's (Argyll and Sutherland Highlanders): Surgeon-Captain A. Donald resigns his commissisn; Surgeon-Lieutenant H. C. Donald to be Surgeon-Captain.

SOUTH AFRICAN WAR NOTES.

Civil Surgeon Wilbond is reported to be improving (June 24th).

Civil Surgeon H. C. Baker has been discharged from hospital to duty.

Civil Surgeons Pridmore, Martine, Weir, and Walker are on passage home.

Colonel Kilkelly, C.M.G., Grenadier Guards, reports that on May 29th, there remained in the Imperial Yeomanry Hospital, Pretoria, 38 officers and 338 non-commissioned officers and men. The total admissions to the hospital since the date of opening number 4258; of these 922 were out-patients. Enteric fever and dysentery still prevail.

AFFAIRS IN SOUTH AFRICA.

There is nothing of a very important or striking character to be chronicled from the seat of war. Despite of the raiding that continues on the part of the Boers the process of attrition is steadily but surely continuing also. Lord Kitchener, telegraphing from Pretoria, stated that since his last despatch the columns had reported 41 Boers killed, 27 wounded, 160 prisoners, 70 surrenders, 41,800 rounds of small arms ammunition and 264 wagons captured,

besides horses and stock. The slowness of the operations recently reported from South Africa has given rise to the impression that the reinforcements, especially of a mounted kind, are inadequate. Be this as it may, it is impossible to doubt that the vast extent of country that has to be guarded and over which the operations extend, the splitting up and dispersal of the Boers into numerous small bodies, and the enormous number of prisoners, women and children committed to our charge and requiring to be treated in accordance with modern ideas of humanity and philanthropy, make up a formidable as well as a very costly undertaking—amounting to a weekly expenditure of some million and a quarter. While many people at home are declaiming against the evils of camps of concentration and our inhumanity, independent military critics who have been present at the seat of war are, on the other hand, astonished at the humane consideration, amounting as they think to weakness, with which this war has been waged. Madame Alice Bron, in her "Diary of a Nurse in South Africa," has a very different story to tell and gives a very different picture of the Boers to that presented by their friends and encomiasts in this country and abroad. There is no denying the fact that the army medical officers who have served in South Africa are, as we have said, dissatisfied and disappointed with the adverse criticism to which they have been exposed on the part of a number of irresponsible people who were simply incompetent to form anything like a correct estimate of the situation or of the excellent professional and administrative work which was done during this campaign—and generally under the most difficult and trying circumstances. Nor, it must be admitted, are speeches like that delivered by Dr. R. Craig Dun on the occasion of a dinner recently given by the profession in Liverpool to the civil surgeons lately returned from active service in South Africa calculated to allay this feeling. We take our account from a report which appeared in the *Times* of June 21st. Dr. Dun's experiences in the field appear to have been the very opposite of those obtained by some of the most eminent hospital surgeons of this country and contrary to the conclusions arrived at by the South African Hospitals Commission. But Dr. Dun, a civilian volunteer surgeon, has no hesitation and apparently entertains no misgiving in regard to his views. He has the courage of his opinions and is equally ready to disparage the army hospitals and to condemn the field medical system which has been tried, adopted, and pursued by every other European military power as well as by ourselves. The army is seemingly in future wars to be for the hospitals and not the hospitals for the army. The British soldier is notoriously a very courageous man and not easily daunted, but he must have food and ammunition to be of any service, and he does not find these on the veldt like manna from heaven. Any alleged breakdown of the hospital system that might have occurred at Bloemfontein was due to the fact that Lord Roberts had to provide his troops with these essentials and to take up at all hazards all the transport for this purpose. Who doubts for a moment that, being in supreme command of the army in the field, he was perfectly justified in what he did and that he would not hesitate to do the same again to-morrow under similar circumstances, and had he boldly said so and declared that the responsibility was solely and entirely his who can doubt that he would have had the nation at his back? Be that as it may, here is what Dr. Dun is reported in the *Times* to have said:—

> Dr. R. Craig Dun described the relation of the civil medical officer to the Army Medical Corps. Referring to the absence of equipment for troops going out, he said that the medical department of the War Office had no idea of the magnitude of the work before it. He denounced the field hospital system, by which the sick and wounded had to be carried about for three weeks and live on rations served out to the Army Service Corps. He compared the military hospitals with the civil hospitals in South Africa much to the disparagement of the former. Speaking of the Hospitals Commission, he said it appeared to civil surgeons as a roaring farce, and whitewashed the whole thing, and quite rightly so, because it would have been a mistake for the general public at home to believe that everything Mr. Burdett-Coutts had said was true. It was much better they should think it was not, though as a matter of fact it was true. The Hospitals Commission had issued a private report to members of the House of Commons, and someone had told him that the Commission fully realised what the state of affairs in South Africa was, and that it was the intention of the country to see that such a state of affairs did not occur again.

Our Liverpool correspondent gives his account of the speech in another column, but does not represent Dr. Dun as alluding to any "private report" of the Hospitals Commission. We are in a position to state emphatically that no such report was made.

NAVAL AND MILITARY CONCERT.

A grand naval and military concert under the patronage of the King and the Queen will be held at the Crystal Palace in aid of service charities on Saturday afternoon, July 6th, at 3 P.M., for the benefit of the following funds:—The Soldiers' and Sailors' Families Association, the Royal Naval Fund, the Soldiers' Daughters' Home, the Royal School for Daughters of Officers of the Army, the Royal School for Naval and Marine Officers' Daughters, the Soldiers' and Sailors' Help Society, Lady Lansdowne's Officers' Families Fund, the National Memorial Gordon Boys' Home, Lady Dudley's Fund for Invalid Officers and Nurses, and the Central British Red Cross Committee. Tickets for reserved and numbered seats are one guinea and half-a-guinea respectively and include admission to the Palace. They may be obtained from the honorary secretary and treasurer, Mrs. Ronalds, 7, Cadogan-place, or from any of the usual libraries and ticket agencies. Extra fast trains will be run on the day in question and a special display of fireworks will be given in the evening. As a musical event the concert, with the massed bands of 20 regiments numbering over 600 picked musicians, will be a novelty. Full particulars of the programme will be announced in a few days. Miss Margaret Macintyre, Miss Marie Brema, Mr. Ben Davies, Mr. Santley, and Signor Ancona have kindly promised their assistance.

DEATHS IN THE SERVICES.

Lieutenant-Colonel George Lemon Walker, I.M.S., Professor of Medical Jurisprudence in the Medical College, Madras, recently, aged 52 years. He entered the Indian Medical Service in 1876, was promoted to surgeon-major in 1888, and to surgeon-lieutenant-colonel in 1896. He took part in the operations against the Rumpa rebels in 1879.

Correspondence.

"Audi alteram partem."

IODIDE OF POTASSIUM IN ASTHMATIC AFFECTIONS.

To the Editors of THE LANCET.

SIRS,—Since you did me the favour of publishing my brief communication on Iodide of Potassium in Asthmatic Affections[1] I have been corrected in one detail, of which it is proper that your readers should be informed. The remarkable experience—or rather experiment—of Principal Barclay in analysing a very complex prescription so as to bring out, in his own person, the special virtues of the iodide was (as I stated) a "cardinal fact" in my own experience and one carrying a lesson of considerable importance. I have since been informed that my "cardinal fact" is distinctly, though anonymously, set forth in the late Dr. P. M. Latham's works[2] and I am glad to acknowledge this, because in Dr. Latham's admirable language the moral and therapeutic lesson of the case stands out perhaps even better than in my short paragraph; only it does not appear that Dr. Latham was cognisant at first hand of the details, otherwise he would have known that there was nothing haphazard about the experiment (as is suggested), but that it was deliberately and persistently carried out upon my suggestion, conveyed through the Principal's regular medical advisers. I mention this once more, not to claim any credit for it, but because I am still under the impression that Principal Barclay's case was probably the first in which a really well-grounded conviction was arrived at as to this particular action of the iodides, and it has become a historic *datum* of more or less importance. I am, Sirs, yours faithfully,

Edinburgh, June 25th, 1901. W. T. GAIRDNER.

UNBOILED v. BOILED MILK.

To the Editors of THE LANCET.

SIRS,—The practice of milk-boiling has been so strenuously urged, almost unanimously, by the profession, and has consequently become so general, that it is with some diffidence

[1] THE LANCET, June 3rd, 1901, p. 1590.
[2] New Sydenham Society's edition, vol. ii., p. 513.

that I venture to raise the question of its wisdom. That raw milk may be contaminated by various bacilli—such as the bacillus tuberculosis, the bacillus typhosus, the bacillus diphtheriæ, the streptococcus scarlatinæ, and even, through the addition of polluted water, the bacillus enteritidis sporogenes and the bacillus coli communis—I fully admit. But are these evils so frequent and so fatal as to counterbalance the disadvantages arising from the diminution or destruction of the nutritive properties of milk which boiling undoubtedly produces? And the gravity of the case is increased when it is remembered that milk should be the staple food of the infant, the child, the aged, and the sick.

The occurrence of illness, epidemics, and death from the presence of extraneous poisons in "fresh" or raw milk is certain, but could not these be met by greater care, enforced by more severe penalties for neglect, and by stopping the supply of milk when disease occurs without habitually destroying the nutritive value of milk by artificial means? When railway accidents happen which maim and kill the advice tendered is not that travellers should stay at home, but that more stringent precautions should be taken to prevent such disasters. And in the case of milk epidemics the remedy should not be habitually to diminish or to destroy the nutritive value of the most valuable food we possess, looking to the number whom it concerns, but to require sufficient precautions regulated by efficient inspection at the source of supply. I maintain that even the accidental poisoning of milk is much less baneful to the community generally than the destruction of its nutritive qualities, which means for artificially-reared infants rickets, infantile scurvy, and tuberculous diseases and for the aged and the sick deficient nutrition. These sufferings are incalculable and often lifelong, while those of epidemics are usually limited, owing to the care expended on their investigation by the medical officers of health.

That "fresh" or raw milk cannot be so deleterious an article of food as is asserted is proved beyond all question by the fact that during a period of 30 years in which I have had charge of the health of a very susceptible community—a great public school—I have had only four cases of typhoid fever, three cases of diphtheria (not one of which was occasioned by milk), and none of tuberculous disease, and yet the boys drink an enormous quantity of milk—so great that I have been censured by a member of the profession for the quantity I advocate and have secured for their welfare, which is never boiled and rarely warmed. In my daily practice outside the school I am perpetually asked by those who have children to rear whether the milk ought to be boiled and my invariable answer is in the negative. For, if there is one thing that is essential to the vigorous growth of children it is a plentiful allowance of milk. How children can be expected to develop on boiled milk and the constant restriction of sugar is beyond comprehension. It is clear to me that the educated, as well as the uneducated, public require to be taught—

1. That the nutritive value of milk is very largely diminished by boiling.

2. That this is true also of sterilised milk, which should therefore only be used for a short time in order to tide over a difficulty in the early artificial feeding of infants. The nature of the change produced by the heating of milk, and which is so deleterious, is not accurately ascertained, but I will produce an instance of its effect. Some time since I attended an infant who did not thrive and who was perpetually crying on the slightest movement. For this I was unable to account although I was answerable for its feeding. Because of its condition another opinion was sought and the child was declared to be syphilitic, so that mercury with chalk was prescribed, although, beyond doubt, no such taint existed in either parent. By-and-by, however, unmistakeable signs of infantile scurvy appeared, with the extreme pallor, the pain on movement of its lower limbs, the typical epiphyseal swellings of the lower ends of the tibiæ, and all the other symptoms so accurately described by Sir Thomas Barlow. It turned out that while I was responsible for the food a lady gossip was answerable for the milk-boiling, hence the result. As soon as this was rectified and anti-scorbutic food was administered the child began to thrive and rewarded the mother for the care bestowed.

3. That while milk contains all the essential ingredients for growth, as well as nourishment—viz., albumin, fat, sugar, salts, and water—it contains no starch. This addition to the infant's food which is so prevalent is most injurious to the welfare of the child. Until I can be convinced that the value of milk-boiling outweighs its defects I have but the advice to give to those who do me the honour to consult me—Don't! If ever the time should arrive that milk must be invariably boiled it should be done as soon as it leaves the cow's udder and before it is distributed. But, at present, the issues of boiled milk, as I have pointed out, are certain, those of unboiled milk are remote. The remedy for the disadvantages of "fresh" or raw milk is not wasteful destruction of its nutritive value by boiling, but the enforcement of efficient inspection of dairy cows, dairies, milkers, and dairy keepers who supply it wholesale and the ensuring of cleanliness also on the part of the retailer.

I am, Sirs, yours faithfully,

CLEMENT DUKES, M.D., F.R.C.P. Lond.

Rugby, June 14th, 1901.

"THE CONTAMINATION OF POST-OFFICES."

To the Editors of THE LANCET.

SIRS,—*Apropos* of your article in THE LANCET of June 22nd, p. 1794, on the "Contamination of Post-offices," I should be obliged if you could allow me a little space in which to point a moral from the action of the French Government. And *en passant* may I remind you that I sent you a marked copy of the *Telegraph Chronicle* some time back, in which I published a complete translation of Dr. Mignot's report and the decrees thereanent which M. Millerand had promulgated. In 1895 I tendered evidence to Lord Tweedmouth's Committee which was designed to prove an unduly high incidence of phthisis among certain classes of employés in the English Post-office. This evidence received considerable attention from THE LANCET and other medical journals. In reply to my contentions it was stated that my figures were unreliable and referred to damaged lives. This contention I combated, and after some years of further study of the matter I am still of opinion that the statistics I gathered gave a substantially accurate view of the mortality rate from phthisis in the British postal service. They showed that of every 100 deaths among sorting clerks and telegraphists during a period of 10 years 45·4 per cent. were due to phthisis. Following upon the notice attracted to the question in 1895 the Postmaster-General commenced the publication of some meagre statistics in his annual report, and has continued to give these statistics up to the present time. They are unclassified, and the whole of the varied occupations of the postal service are lumped together as though they were a single class performing identical work under identical conditions. But even these unsatisfactory figures give the following result: the total annual loss from phthisis during the year 1896 was 2·4 per 1000 living, in 1897 it was 1·9; in 1898 it was 1·9; and in 1899 it was 1·7. The figures refer to the established staff, every member of which is a carefully selected life and has passed a series of severe medical examinations before entry into the service. According to the Registrar-General's returns for the same years the loss among the general population from phthisis was 1·3 per 1000 living. It is unnecessary to remind readers of THE LANCET of the serious nature of this comparison. The loss among specially selected lives is considerably higher than among the general population, which includes the weak, the sick, and the rejected of the Post Office. In view of the gravity of these facts I have received permission to introduce the subject in the Section of State Medicine of the British Congress of Tuberculosis, and I trust that this will tend to bring into operation some such steps as have been adopted by the French Post-office. The English postal servants are not quite so helpless as your correspondent represents the French employés to be, and this may be the reason why the charity of the Postmaster-General has not yet reached them.

There is a curious coincidence in the fact that in the same issue of THE LANCET in which you record the generous action of the French Minister towards his minor employés you also publish a reply by Mr. Austen Chamberlain to Sir Walter Foster, M.P., in which he declines a return which would show the real loss from phthisis among the English postal staff. I have been using the best endeavours of a layman to draw attention to this matter for some six years; may I now hope that you

will give me the useful support of the prestige and publicity of THE LANCET? Every life lost from a preventable disease is a wasted life. "If preventable, why not prevented?" said King Edward on a memorable occasion. One of the best fields in which to commence operations is among the 160,000 employés of the British Post-office. The measures adopted in France afford a useful example of what can be done.

I am, Sirs, yours faithfully,

Barnes, S.W., June 21st, 1901. CHARLES H. GARLAND.

OPTIC ATROPHY AND TABES DORSALIS.

To the Editors of THE LANCET.

SIRS,—There has to the best of my knowledge never been any theory which satisfactorily accounts for the fact that double optic atrophy coming on early in locomotor ataxia so frequently causes arrest of the disease, and in some cases even permanent improvement. I, therefore, venture to propound the following which I think will account for it in great part, if indeed it does not do so entirely.

The tabetic patient in consequence of failure of eyesight is forced to rely for all his movements more and more on his muscular sense, ordinary sensation, sense of localisation and coördination. He is, in fact, actively engaged in trying to restore the impairments and re-educate these senses every minute of the day when not asleep. The effects of coördinate gymnastics and regulated exercise in tabetics is well known in diminishing the ataxia, &c. Would not this compulsory training due to the failure of eyesight have the same result, though in a more powerful manner, as it is continually being called into demand? And here, of course, the training is progressive, just as in the gymnastics and regulated and gradual exercises. I cannot recall to my mind any case of locomotor ataxia coming on in persons previously blind from other causes. My experience, of course, is very limited, but I think that statistics would show that the percentage of such is very small. If this is so, it adds a strong argument in favour of my theory. I trust that some neurologists of experience will be able to throw light on the subject and show whether the percentage just mentioned is small or not.—I am, Sirs, yours faithfully,

June 9th, 1901. EDGAR F. CYRIAX, M.B., Ch.B. Edin.

"LEGISLATION AGAINST NATIONAL INTEMPERANCE."

To the Editors of THE LANCET.

SIRS,—I have to thank my friend Dr. G. Archdall Reid for his letter published in THE LANCET of June 22nd, p. 1790. At last he makes his position clear. He founds his views on Galton not on Weismann, but the distinction is really one without a difference. Both contend for the non-transmissibility of "acquired" modifications or features. The only point of variation is that Galton arrives at his conclusion by one route, Weismann by another. Both views are pure speculations. Dr. Reid therefore bases his views, which are also speculations, on a like foundation. So far, therefore, when he contends that we who believe that acquired characters may be transmitted have no proof of our belief, he possesses no advantage over us. If one view (as a theory) is permissible, the other (as a theory) is equally so. But Dr. Reid thinks that the germ-plasm—assuming for the moment that the great divergence between germ and soma contended for by Galton and Weismann is a reality—can never be impressed by acquired characters. I ask him, therefore, in turn, how he knows this? The whole matter is one of explaining certain facts, and I may remind him that there are cases and facts which appear to be as explicable certainly on the theory of the transmission of acquired features as on that of natural selection. If any biologist will demonstrate that the germ-plasm is utterly independent of the body-plasm, then Galton's hypothesis may have a fair chance of passing into the region of demonstrated fact. As it is, I regard Darwin's "pangenetic" theory as a far more likely explanation of the reason of the germ being capable of reproducing parental features. Dr. Reid has over and over again made the assertion that naturalists have ransacked the animal and plant worlds without finding an instance of the transmission of acquired characters. He would have been more just and correct had he said that he really means that his theory is the only one that explains instances of transmission. In your own columns, Sirs, you have published cases (e.g., those of Dr. W. Duncan) which demand explanation. In *Nature* of a fortnight ago there is the case of the oysters given by Mr. J. M. Tabor. There is the case of the motmot's feathers alluded to by Darwin. There is the instance of Japanese fowls and their tail-feathers, also alluded to in *Nature* a week or two ago by Mr. J. M. Cunningham. I might multiply examples, but if Dr. Reid is in earnest in seeking material he will find no lack of such. The opinion that acquired features may be handed on is, to put the case very mildly, just as feasible an explanation of facts as the opposite view. Possibly Dr. Reid does not think the opinions of Mr. Herbert Spencer, Hertwig, Eimer, or Cunningham worth consideration; yet in biology these are names which carry weight and they are those of men opposed, on purely scientific considerations, to the idea that acquired features are never transmissible and that this view can explain no fact of inheritance. The long and the short of it is that Dr. Reid and his opponents are dealing with speculations pure and simple, and the one view is just as tenable as the other. Certain it is also that the one theory is not inconsistent with the other. Both may be correct and both have to be judged by the only safe criterion of any hypothesis—namely, that a good theory explains all the facts and is contrary to none. It has not yet, at least, been demonstrated that the theory that acquired characters may be handed on by processes of heredity is inconsistent with facts.

I am, Sirs, yours faithfully,

Edinburgh, June 22nd, 1901. ANDREW WILSON.

"THE SURGERY OF PREGNANCY AND LABOUR COMPLICATED WITH TUMOURS."

To the Editors of THE LANCET.

SIRS,—I have read with much interest the letters of Dr. G. E. Herman and Mr. Bland-Sutton and Dr. W. S. Playfair in THE LANCET of Feb. 16th and 23rd. Apart from any possible chance of being misunderstood may I add my contribution of opinion to those already expressed? The times are changed, but have the members of the profession who teach and practise gynæcology changed with them? If anyone interested will refer to Dr. Spencer's paper in the *British Medical Journal*, No. 1720, p. 1315, he will find an excellent then up-to-date account of the advantages attending the practice of obstetric physicians who performed major abdominal surgery. It is curious that a sort of general statement which appeared in the *Gynæcological Journal*, vol. ix., 1894, pp. 451-454, has left very little for anyone to add. Still, as in 1893, "Bartholomew's blocks the way." It is true that, fortunately, neither the reputation of the great hospital nor the sick poor suffer, as in the hands of the very competent staff the work done in abdominal surgery and gynæcology ranks with any other London hospital. In the excellent hospitals of Australasia and New Zealand are many gynæcologists, some of whom are physicians and some surgeons, who are worthy to be ranked with some of their brethren who are now in London, Liverpool, Manchester, and other large cities. So ere we decide one way or the other it is well to have all the facts clearly before us. May I add that I claim to practise what I teach—viz., the very great importance of always endeavouring to make a clear diagnosis before deciding to operate? True, the best men may make mistakes, but he who is "never wrong" has yet to be found.

During the past 20 or 25 years no branch of medical practice has made such great advances as gynæcology. This being granted, is it not natural that there may also exist certain differences of opinion between gentlemen who may have been influenced by their individual experiences and opportunities? For example, some operators are, as a matter of individual experience, advocates of the vaginal rather than the abdominal route for entering the peritoneal cavity. Some prefer to attack diseased renal organs from an incision directly over the kidney, others prefer generally to operate by opening the peritoneal cavity as in abdominal section. Some have, perhaps, abused oöphorectomy and not unfrequently removed one if not both healthy ovaries. At best the patient has to depend on the skill and experience of the gynæcologist whom she may be under, and on his part the operator must treat every case of pregnancy complicated by

tumour upon no fixed operative basis but as the peculiar or special circumstances seem to require. No general rule will be found applicable to all cases of pregnancy complicated by a tumour.

I am, Sirs, yours faithfully,

Adelaide, S.A. A. D. LEITH NAPIER.

THE CASE OF SURGEON W. R. KNIGHTLEY, R.N.

To the Editors of THE LANCET.

SIRS,—I beg to bring to your notice the action of the General Medical Council and the naval medical officer. To abuse the relationship between medical adviser and patient is most reprehensible, but I thought it was a maxim of English law that a subject should not be punished twice for the same offence. To mulct a man in £3000 damages in a civil court and then for the General Medical Council to take away his means of gaining a livelihood is to my mind certainly not justice tempered with mercy.

I am, Sirs, yours faithfully,

FREDK. W. COLLINGWOOD.

Wimpole-street, W., June 24th, 1901.

To the Editors of THE LANCET.

SIRS,—The proceedings of the General Medical Council are always read with great interest. One turns, after the labours of the week, to the report in THE LANCET with eagerness to note what progress has been made, and how that august body are upholding the honour and dignity of the profession. After the tremendous slap in the face administered to them by Mr. Chamberlain in the case of Dr. Irvine I really thought they would be more guarded as to the course they adopted towards any other sinner who might be so unfortunate as to come under censure, particularly a man holding a position in the navy and so more or less under the ægis and protection of the Government. But it appears that the General Medical Council are bent upon riding for a fall. I deduce this from the extraordinary decision arrived at in the case of Surgeon W. R. Knightley. Anything more unjust, oppressive, and arbitrary can hardly be imagined, and I am astonished at such unfair treatment, so vindictive and opposed to the principles of English law. However guilty the man was he has paid the penalty and should not be tried again for the same offence. A certain punishment has been meted out to him and the infliction of this ought certainly to have condoned the matter. The jury arrived at a decision and awarded a fine they considered would be sufficient penalty, but if that jury had known that as a consequence of their verdict the man's livelihood would be taken from him and that his pecuniary loss would far exceed the sum they in their wisdom fixed upon I am certain the amount would have been put at a far less sum. If the naval authorities take the same view of the matter it only remains for them to keep Surgeon Knightley in his position as surgeon on board H.M.S. *Harrier*. He may snap his fingers in the faces of the General Medical Council and they will be powerless to resent it. It is certainly time the profession had more Direct Representatives and both services should be represented on the Council, which is composed too much of teachers and consultants.

I am, Sirs, yours faithfully,

M.D.

*** We do not agree with our correspondents' strictures on the General Medical Council in this matter. It must be remembered that when a medical man abuses the position which his profession gives him by seducing a female patient he inflicts a terrible blow upon the honour of his calling—that very honour which the General Medical Council should be alert to maintain. Still, it is true that if the jury had realised the heavy penalty that the disciplinary body of the medical profession might later exact from Surgeon Knightley it is possible that they would have awarded less damages to the injured husband. We believe, however, that from a legal point of view damages are awarded as a *solatium* to the husband for his loss and not as a punishment to the person who deprives him of his wife. We do not think the naval authorities will be well advised to ignore Surgeon-Knightley's position. All candidates for commission in the naval medical service are required to be "registered under the Medical Acts in force," and it would be inconsistent to ask less from an officer with a commission than is demanded from those who aspire to a commission.—ED. L.

"SUGAR-FREE MILK AS A FOOD FOR DIABETICS."

To the Editors of THE LANCET.

SIRS,—I have read with great interest Dr. Robert Hutchison's article which appeared last week in THE LANCET, advocating the use of a sugar-free milk as a food for diabetics. Dr. Hutchison removes the sugar from the milk by curdling with acetic acid and subsequently washing the curd. He then dissolves the casein in a little potash, afterwards adding cream and a little gelatin and saccharin. The product is then strained. It seems to me that this plan of preparation is unnecessarily elaborate in view of the fact that pure soluble casein is a commercial product. My firm, for example, make tons of perfectly pure casein from the best quality of English milk in the form of a fine white powder, perfectly soluble in water. In contains nearly 90 per cent. of casein along with milk salts. It is practically tasteless, and very cheap. Surely it would be simpler to use this casein directly instead of milk, dissolving a definite quantity in water and adding cream, gelatin, and a little saccharin in the manner suggested by Dr. Hutchison.

I am, Sirs, yours very truly,

Motcombe, Dorset. CHAS. PRIDEAUX.

"HOSPITAL SUNDAY AND THE NATIONAL ANTI-VIVISECTION SOCIETY."

To the Editors of THE LANCET.

SIRS,—Although in your attack upon me in THE LANCET of June 22nd, p. 1771, you say of me "he may spare himself the trouble of writing two-column letters to us," I presume that you will allow me a modest corner in your paper for a few words in defence of myself. You say "the hospital authorities have a perfect right to subsidise their schools if they like." If that be so, why have we not an equal right to inform the public that they do so?

Our position is a perfectly proper one. We assert (1) that congregations on Hospital Sunday are asked to subscribe for the tending of the sick poor, and in the vast majority of churches are not informed that the education of medical students will in part be defrayed out of the funds into which their contributions are paid; (2) that as a fact the Mansion House Fund does pay the money so subscribed in the churches into the general funds of hospitals out of which general funds the subsidies to the schools are made; (3) that the clergy can ascertain these facts for themselves if they look at the published accounts of the hospitals; and (4) that it is quite unfair to hide these facts from those who give the money, and that if the clergy will not communicate them we are absolutely justified in taking the only means left us of imparting a knowledge of them to the congregations.

Next let me say that as regards the single specific inaccuracy you think you have discovered in my "Guide to the Charitable," the returns for 1899 were the last available when the last edition of the Guide was printed, and those returns contained Dr. C. Arkle's name in the relation to Charing Cross Hospital which the guide records. If Dr. Arkle be now, as you say, dead, the next edition corrected with the returns of 1900 (only recently published) will be as accurate as was the last. Lastly, I hope I may explain that I myself, and I imagine most reasonable anti-vivisectionists, would not refuse as a matter of conscience a benefit that might be assigned as to its discovery to vivisection. We need not refuse to use a drug because some industrious but irrelevant experiments have been made with it upon animals. We need not accept the hypothesis that the best way to find out the internal construction of an apple is to cut open an orange. And were all the extravagant claims of the vivisectors true, we are no more morally bound to reject benefits acquired by indefensible means than are the descendants of slave-holders bound to abandon wealth originally acquired by the detestable abomination of slavery.

I am, Sirs, yours faithfully,

June 22nd, 1901. STEPHEN COLERIDGE.

METROPOLITAN HOSPITAL SUNDAY FUND.

THE following is a continued record of some of the principal amounts that have been received in aid of the Fund up to the time of going to press on Thursday. The total sum then amounted to £36,000. At the corresponding period last year the total was £31,000:—

	£	s.	d.
Christ Church, Lancaster-gate (including additions) ...	1317	0	0
St. Michael's, Chester-square (including an additional £5)	1245	0	0
St. Jude's, South Kensington	557	0	0
St. Paul's, Onslow-square	360	0	0
St. Paul's, Knightsbridge, with St. Mary's, Graham-street	291	0	0
St. George's, Hanover-square	252	0	0
St. Marylebone Parish Church	209	0	0
St. Mark's, Hamilton-terrace	201	0	0
St. Stephen's, South Dulwich	190	0	0
Church of the Annunciation, St. Marylebone	188	0	0
Essex Unitarian Church, Kensington	175	0	0
Holy Trinity, Sydenham	170	0	0
St. Margaret's, Westminster	163	0	0
St. Michael's, Paddington	160	0	0
The Theistic Church, Swallow-street, St. James's	157	0	0
St. Matthew's, Bayswater	136	0	0
St. Bartholomew's, Sydenham	124	0	0
Christ Church, Chislehurst	121	0	0
Union Church, Islington	120	0	0
St. Peter's, Brockley	118	0	0
St. James's, Paddington	117	0	0
St. Stephen's, Ealing...	116	0	0
St. James's, Piccadilly	115	0	0
St. John's Presbyterian Church, Forest-hill	115	0	0
Christ Church, Gipsy Hill (morning collection)	114	0	0
Immanuel and St. John's Mission, Streatham	108	0	0
St. Barnabas', Kensington...	102	0	0
St. Saviour's, Upper Chelsea	102	0	0
Regent's-square Presbyterian Church	101	0	0
Central-hill Baptist Chapel, Upper Norwood	100	0	0
"F. G. D."	100	0	0
St. John's Presbyterian Church, Kensington...	100	0	0
Anonymous	25	0	0
Mr. Julian, senior	21	0	0
St. Saviour's, Southwark	32	0	0
St. John's, Sidcup	23	0	0
Kingston-on-Thames Parish Church	23	0	0
St. Stephen's, Westminster...	22	0	0
St. Stephen's, Hampstead	20	0	0
Blackheath Wesleyan	20	0	0
St. Paul's, Forest hill	51	0	0
Great Warley Parish Church	24	0	0
St. Olave's, Woodberry Down	40	0	0
Brixton Unitarian	29	0	0
Chiswick Parish Church	33	0	0
St. Paul's, Canonbury	21	0	0
St. Mark's, Bromley, Kent	24	0	0
Lalebam Parish Church	24	0	0
Stoke Newington Parish Church	65	0	0
St. Peter's, Highgate-hill	26	0	0
Wellington Barracks Chapel	32	0	0
St. John's, Upper Holloway	24	0	0
Old Malden Parish Church	45	0	0
Monken Hadley Parish Church	40	0	0
Clapton Congregational Church	35	0	0
St. George's Garrison Church, Woolwich	27	0	0
St. Luke's, Hornsey	25	0	0
St. Paul's, Hammersmith	24	0	0
St. Augustine's, South Kensington	58	0	0
Woodford Parish Church	20	0	0
Trinity Presbyterian Church, Bromley, Kent	30	0	0
St. Mary Magdalene, Peckham	37	0	0
St. Andrew's, Totteridge	39	0	0
St. Mark's, Reigate	80	0	0
Christ's Church, Hornsey	53	0	0
"A. B. C."	20	0	0
St. Michael's, Southfields	20	0	0
All Saints' and St. Augustine's, South Lambeth	21	0	0
St. Anselm's, Pinner	20	0	0
Keston Parish Church	23	0	0
Box outside Mansion House	37	0	0
St. James's, Clapton	25	0	0
St. Stephen's, Avenue-road...	33	0	0
Gray's Inn Chapel	50	0	0
St. Mary Aldermary, &c.	89	0	0
St. Agnes's, Kennington-park	54	0	0
Holy Trinity, Eltham	49	0	0
St. John the Evangelist, Norwood	25	0	0
West Hackney Parish Church	29	0	0
St. Paul's, Wimbledon Park	31	0	0
St. Anne's, Soho	61	0	0
All Saints', Notting Hill	43	0	0
St. Jude's, Mildmay Park	21	0	0
Holy Redeemer, Stoke Newington	35	0	0
St. Mary's Hospital Chapel, Ilford	23	0	0
St. Andrew's, Stoke Newington	48	0	0
Mr. W. Mann Cross, C.C.	20	0	0
Dartford Church...	33	0	0
Holy Trinity, Kilburn	28	0	0
Annunciation Church, Chislehurst	76	0	0
St. Peter's, Eltham-road	21	0	0
St. John the Evangelist, Westminster	33	0	0
St. Michael's, Highgate	90	0	0
St. Peter's and St. Paul's, Streatham	49	0	0
Wanstead Parish Church	28	0	0
Christ Church, Wanstead	38	0	0
St. George's Chapel, Albemarle-street	41	0	0
Christ Church, Southgate	50	0	0
St. James's, Muswell Hill	54	0	0
St. George's, Perry Hill	46	0	0
St. Andrew's, Westminster...	56	0	0
St. Paul's, Camden-square	41	0	0
St. Matthew's, West Kensington Park	26	9	0
St. Saviour's, Denmark Park	24	0	0
St. Mark's, Lewisham	21	0	0
Christ Church and St. Barnabas', North Finchley	22	0	0
Carmelite Church, Kensington	30	0	0
Catholic Apostolic Church, Maida Hill...	20	0	0
Stamford-hill Congregational Church	92	0	0
Stanmore Parish Church	50	0	0
St. Stephen's, Gloucester-road	99	0	0
Christ Church, Newgate-street	50	0	0
Holy Trinity, Lee	24	0	0
Headley Parish Church, Epsom	68	0	0
Chipping Barnet Parish Church	25	0	0
St. Augustine, Kilburn	70	0	0
Hornsey Parish Church	25	0	0
Clapham Parish Church	61	0	0
St. Mark's, North Audley-street	68	0	0
Heath-street Baptist Chapel, Hampstead	50	0	0
Holy Trinity, Paddington	94	0	0
Emmanuel Church, Wimbledon	70	0	0
Lewisham Parish Church	54	0	0
Highbury Quadrant Congregational Church	68	0	0
Dutch Church, Austin Friars	51	0	0
St. Mary Magdalene, Wandsworth	21	0	0
St. John the Evangelist, Blackheath	50	0	0
St. Michael's, Blackheath Park	84	0	0
St. John's, Downshire-hill	41	0	0
St. Mary the Virgin, Primrose-hill	30	0	0
Emmanuel, West Hampstead	38	0	0
Christ Church, Hampstead	30	0	0
All Saints', Clapham-park	35	0	0
St. John the Evangelist, Penge	77	0	0
St. Matthew's, Ealing	45	0	0
St. Alban's, Holborn	36	0	0
St. Andrew's, South Streatham	22	0	0
St. Barnabas', Dulwich	24	0	0
St. Mary's, Spring-grove	32	0	0
All Saints', Friern Barnet	33	0	0
Upper Tooting and Merton Wesleyan Churches	21	0	0
St. James's, Holloway	65	0	0
Christ Church, Highbury	51	0	0
St. Mark's, Kennington	30	0	0

THE ROYAL UNIVERSITY OF IRELAND COMMISSION.

(FROM A CORRESPONDENT.)

AFTER a long delay Mr. Arthur Balfour announced on June 20th to the House of Commons the names of the Commissioners, as well as the terms of reference, and from the criticism aroused in Ireland it is becoming apparent that this Commission, like so many similar inquiries, may only end in failure. In the first place, the terms of reference "to inquire into the present position of higher, general, and technical education outside Trinity College, Dublin, and to report as to what reforms, if any, are desirable in order to render that education adequate to the needs of the Irish people," are very peculiar. Imagine a Commission to inquire into higher education in England "outside Oxford and Cambridge," or of Scotland "outside Edinburgh University." It is, indeed, the play of *Hamlet* with Hamlet left out. This leaving out of Trinity College has caused intense indignation among the northern Presbyterians; it has failed to satisfy the Roman Catholics; a large number of the younger Trinity College men, who lament the rapidly falling number of their students, object to the exclusion of their College, as they hoped that evidence given before the Commission would have led to reforms and changes suited to the present age; and all true educationists feel that the recommendations of a Royal Commission on Irish University Education which excludes Trinity College will not be worth the paper on which they are printed. Then comes the practical question, Is the chairman (a Scots lawyer) at once to closure any witness who makes the slightest reference to Trinity College? When the Royal University of Ireland was established in the place of the Queen's University the following clause in the Act establishing it was passed:—

In fixing the value and the number of the said several exhibitions, scholarships, fellowships, and other prizes, the Senate shall have regard to the advantages of a similar kind offered by the University of Dublin and Trinity College to students matriculated in that University, so as

to avoid, as far as possible, any injury to the advancement of learning in that University and College.

This most remarkable provision really means that the education and the encouragement of education of five-sixths of the Irish people should be regulated by consideration for the privileges of Trinity College. How, then, can the Commissioners form any idea of the influence of this provision on the education of five-sixths of the people of Ireland without a knowledge of the finances of Trinity? Again, what does "general and technical education" mean? It is surely broad enough to include education of every description, and at the present moment is not the whole empire calling out for teaching of technical and commercial subjects? and yet there is not a single member of this Royal Commission with any special knowledge of either commercial or technical education. Then the constitution of the Commission is most extraordinary. Trinity College is to be carefully excluded from discussion, and yet the Vice-Chancellor of Dublin University (Mr. Justice Madden) and a Fellow and Tutor of Trinity College and a present member of the academic council of Dublin University (Mr. W. J. M. Starkie) are put on the Commission, in order apparently at once to prevent any chance reference which might be made to that College. It will be remembered that in addition to the large number of Royal University graduates there are also many old Queen's University men, and yet one of the most unfair features of this remarkable Commission is that among the 12 members there is not one to represent the graduates of the old Queen's or of the present Royal University graduates. As is well known to the public there is a marked cleavage of opinion in the Senate of the Royal University on the question of the solution of the Irish University problem. Two of the senators—Mr. Starkie (a Roman Catholic) and the Roman Catholic Bishop of Clonfert—both of them declared opponents of non-denominational education and of the Queen's Colleges, are appointed members of this Commission, and not one single representative of those on the Senate who advocate the non-sectarian view of education has been selected. The method in which the various faculties are represented is also most peculiar. Literature is represented by seven members; law by two, including the chairman; general science by two; and medicine by one. The gentleman who is the medical commissioner is an examiner in the Royal University and he may find himself in an unenviable position, sitting in judgment, perhaps, on his colleagues. In appointing a Commission the Government might have adopted one of two courses; first, they could have selected men of recognised position in the educational world outside Ireland altogether, who had never committed themselves on this most vexed question, or they might have appointed a Commission with the various contending opinions fairly represented. They have taken neither course, but have appointed a Commission of whom it is openly stated in the Irish newspaper press that seven out of the twelve Commissioners are already pledged to a definite settlement of Irish University education before they have heard one word of evidence. It is, indeed, amusing to read the opinions of many of the Commissioners—in former public utterances—quoted now in the newspapers. On the other hand, the Government has made the serious mistake of appointing no representative of those who hold strong views on the subject. I have carefully avoided expressing any opinion as to what the final solution of Irish University education should be. One hoped to get light and truth out of the evidence presented by those examined at this Commission, but it is apparent that no solution of this admittedly thorny problem worth considering can be hoped for from a Commission on which the views of large numbers of the citizens of Ireland are not represented.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

The Decline of the Plague Epidemic.—The Escape of Rangoon.—Treatment of Plague in Bombay.—Relapsing Fever in Bombay.—Establishment of a Dental Surgery at Quetta.—Privilege Leave for China Officers.—Prosecution for Adulteration.—The Culpable Negligence of Native Chiefs during the Famine.

THE epidemic of plague throughout India continues to decline although this week's figures are larger by the inclusion of deaths in the Punjab which ought to have been returned in May. The deaths are rapidly going down in Bombay city and in the Presidency and at Karachi the outbreak has nearly subsided. At most other places previously affected there is a decline also, but in Belgaum the deaths have increased from 116 to 181 and I hear that several cases have unexpectedly occurred in Poona. This is ominous because it was at this period of the year that the previous severe recrudescence occurred in Poona. Calcutta is by no means free but the daily returns have come down to single figures.

I hear that a few weeks ago Rangoon had a very narrow escape of becoming infected. A coolie of low caste was permitted to land and to go to his destination, but the next day he was found with high fever and was removed to hospital with undoubted plague but he died on the following day. Apparently he has not left any infection behind him and Rangoon may be said to have had a lucky escape. The case, if correctly reported, suggests that sufficient care was not exercised in his examination, as at the time plague was raging severely in Calcutta and special precautions should have been taken on his arrival. I understand that a great display of police force accompanies the visits of the port health officer at his inspections, which is said to have a terrorising effect upon the native passengers. This was not formerly considered necessary, and if not really required is on several grounds undesirable.

A plan of treatment for plague now being advocated in Bombay consists in the internal administration of iodine terchloride. The chief enthusiast for this treatment publishes figures showing a recovery rate of 58·9 per cent. The experiments do not seem to have been carried out under scientific conditions.

A return issued by the accountant to the Corporation of Bombay shows the total plague expenditure for that city at over 50 lakhs of rupees. Relapsing fever continues rife in the city, where it has been regularly in existence since 1897. The type of the disease is said to have become more severe, and whereas formerly the mortality was between 10 and 20 per cent. it has now reached 50 per cent. I doubt this.

Government have sanctioned as an experiment the establishment of a dental surgery at Quetta for the benefit of British troops and also sanctioned a grant of 140 rupees a month for the purchase of materials.

90 days' privilege leave is sanctioned to all officers and subordinates, subject to military rules, reverting from field service in China. Such leave must be taken within a year, and it may be taken either from China or subsequently from India.

A very interesting case of prosecution for adulteration has recently occurred in Calcutta. A large ghee (clarified butter) merchant was convicted and fined. The evidence of Dr. Bedford was cited against that of Dr. Dutt, the municipal analyst, and the magistrate found practically that Dr. Bedford's analysis was not based on any accepted standard, and held that several of his conclusions were valueless. The judgment was a clever piece of dissection of scientific evidence.

The culpable negligence of certain native chiefs with regard to famine has been shown in the two states of Bundi and Indore. The agent in Rajputana wrote: "The Bundi durbar are slack and apathetic—they regard the mortality as inevitable." The people suffered terribly. The census showed that in 10 years the population in Bundi has decreased 42 per cent. Famine is mainly responsible for this, and the culpable neglect on the part of the chief and his durbar had much to account for the mortality. Again, in Indore the Maharajah himself peremptorily ordered the stoppage of all famine relief and further declined to permit any suspension of revenue. At the time his subjects were dying by hundreds and there was plenty of money in the treasury. After the mischief had been done His Highness yielded. The conduct of these two rulers was, to say the least, apathetic and discreditable to native rule. Fortunately, these two cases are exceptional.

June 8th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Banquet to Local Civil Surgeons who have served in South Africa.

Mr. F. M. Aldred, Dr. T. T. Bark, Mr. W. B. Bennett, Dr. R. Craig Dun, Mr. A. M. Dodd, Dr. Arthur Evans, Mr. T. H. Moyles, Mr. J. Owen, Mr. E.

Roberts, Dr. Arthur N. Walker, and Dr. J. H. Willett, who have served as civil surgeons with the forces in South Africa, were entertained to dinner at the Exchange Station Hotel on June 20th as a professional recognition of their services. The chair was occupied by Mr. Edgar A. Browne, the President of the Liverpool Medical Institution, Sir William Mitchell Banks occupying the vice-chair. The chairman, in proposing the health of "The Guests," paid a fitting tribute to their patriotism and self-sacrifice and made a touching allusion to the late Mr. Edgar Smith who had succumbed to enteric fever. The feature of the entertainment was the remarkable speech of Dr. R. Craig Dun, late of the 2nd Battalion of the Imperial Yeomanry, in reply to the toast of "The Guests." The gist of Dr. Dun's speech was practically a vindication of Mr. Burdett-Coutts's charges of the breakdown of the Army Medical Department, which he attributed to "army regulations," and not to any shortcomings on the part of the Royal Army Medical Corps, who had done splendid work under the greatest possible difficulties. In the face of the existing regulations he could not honestly advise any graduate in medicine to look to service in the army as a fair field for his energies. There was great bustle among the hospitals in South Africa when it was known that the Commission was coming out. He must say that the Commissioners were considerate—they always gave a hospital 48 hours' notice of their approaching visit. The impression left among medical men at the front was that the Commission was "a roaring farce." But it was not. The Commission came home and whitewashed the whole thing, and quite rightly. It would have been a mistake for the public to have believed that everything Mr. Burdett-Coutts said was true, though it was true for all that. In conclusion Dr. Dun said that at present promotions in the Royal Army Medical Corps depended, not upon professional ability, but upon a man filling in his return-sheets accurately. The medical men at the front spent a great deal of their time in filling up return-sheets. He would relegate this clerical work to non-commissioned officers. He advocated a return to the older system of regimental surgeons as far preferable to the existing arrangements. He also severely criticised the want of medical equipment for his corps at critical times. Altogether Dr. Dun does not appear to have been impressed with the forethought of the army authorities.

Hospital Saturday Fund: Street Collection.

The result of the street collection made by the ladies on behalf of the Hospital Saturday Fund on June 8th was disappointing. The collection only realised £781 18*s.* 4½*d.*, as against £837 12*s.* 4*d* last year. It was fully expected that at least £1000 would have been obtained, as the weather was exceptionally favourable for the collection.

Low Death-rate in Liverpool.

Dr. E. W. Hope, the medical officer of health, had the satisfaction to inform the health committee that the death-rate for the week ending June 15th was only 18·5 per 1000 of the population.

The Birkenhead Guardians and Lady Doctors.

The Birkenhead guardians have been accused of lack of chivalrous conduct towards the female sex by their recent action in the matter of the vacancy for the post of assistant medical officer to the Birkenhead workhouse hospital. In reply to an advertisement inviting candidates to apply for the post two qualified ladies responded, both of whom were requested to attend the meeting of the board. A male candidate was also invited to attend, but failed to do so, leaving the two ladies in possession of the field. Mr. T. R Bulley moved the appointment of Miss Eva M'Call, M.B. Glasg., one of the lady applicants, which was duly seconded. An amendment was moved by Mr. H. Pooley:

That, as there had not been a large response to the board's advertisement, another advertisement should be issued, and that the salary offered now should be £130 instead of £120 per annum.

He did not think the position was one for a woman, as the strain was very great and there were cases in the place with which a woman ought not to deal. This amendment was carried by the casting-vote of the chairman, with the result that an advertisement now appears in the medical press inviting applications for the post of "male assistant medical officer." It will be generally conceded that a male resident medical officer is more suitable for the appointment in question; but there can be no difference of opinion that the lady candidates have reason to complain of the action of the authorities in inviting them to apply for a post for which half the board considered them unsuitable. The arguments adduced at the meeting ought to have been thrashed out prior to issuing the first advertisement—the ladies would not then have been placed in such a false position. The action of the guardians was severely criticised by the local press, and deservedly so. As a solace to the feelings of the lady candidates Mr. Pooley was good enough to remark that "when the time arrived for appointing two doctors he would support the appointment of a woman for the female patients only."

A Mortuary for Birkenhead.

An inquiry was held at the Birkenhead Town Hall on June 20th by Dr. E. P. Manby, Local Government Board inspector, into an application by the Birkenhead corporation for powers to borrow £750 for the purpose of erecting a mortuary. Evidence was adduced as to the necessity for the provision of a properly equipped mortuary by the borough coroner and several corporation officials. It is satisfactory to find that the inspector was thoroughly in sympathy with the corporation and remarked that there was no doubt that a mortuary was needed in the borough.

Liverpool Country Hospital for Chronic Diseases in Children.

In March last an announcement was made by the chairman at the annual meeting of the subscribers to the Liverpool Country Hospital that a gentleman who desired to remain anonymous had made a generous offer to contribute £5000 towards the funds for the new hospital, which is to be erected at Heswall, at a cost of £20,000. The offer was conditional upon three other donations of a similar amount being forthcoming by June 30th. The committee have endeavoured to comply with the condition imposed by the anonymous donor, but as yet the contributions have not reached the amount stipulated. During the past three months £5000 in various sums have been promised. The calls made upon the charitably disposed within the last few years for various philanthropic objects have been very great. At the present time the appeal by the bishop of the diocese for funds to erect a cathedral has met with a response of £138,000 within a very short time, and the fund presided over by the Lord Mayor for the erection of a memorial to her late Gracious Majesty has also been liberally responded to. These calls upon the public liberality are likely to affect the hospitals; at the same time, it would be unfortunate if the generous offer to the Liverpool Children's Country Hospital were to lapse through non-compliance with the stipulated conditions.

The Maghull Epileptic Home: Munificent Offer by Mr. Alfred L. Jones.

The twelfth annual report of the committee stated that during the year 1900 81 males and 66 females were admitted, 21 patients had been discharged, and three had died; and on Dec. 31st there remained in the home 69 males and 54 females Land had been purchased for the purpose of erecting a villa for first-class patients and to provide accommodation for the nursing staff of the male department. The building, roads, and drainage were estimated to cost £5500, towards which the committee had funds in hand or promised amounting to £3500, leaving £2000 still to be provided. A friend had generously promised £500 towards the cost of furnishing the villa, and another friend had intimated her willingness to furnish a suite of rooms. A further expenditure of £360 would be involved in carrying out certain sanitary improvements. Mr. Alfred L. Jones, in moving the adoption of the treasurer's statement, said that he felt the greatest sympathy with the efforts put forward by the committee, and he believed they wanted something like £10 000 to carry out the work properly. He would consider it a very great pleasure if he were allowed to contribute £1000, provided they got the whole sum required within six months from the date of his offer. If the response did not come he would willingly give half the amount. The medical report is very satisfactory, but it points out that there were in the home epileptics who could plough, hoe, reap, milk cows, make baskets, wash, iron, and cook—in fact, the homes were blocked by these trained cases who occupied the ground necessary for developing the faculties of the new patients. It was worse than useless discharging them to their friends who could not find them employment.

New Nurses' Home at St. Helens.

The new home for the district nurses of St. Helens, the

generous gift of Mr. and Mrs. W. W. Pilkington, was formally inaugurated on June 19th. The house, which is a most suitable one, was built by the late Mr. James Hill who left a legacy of £150 to the charity. There is ample room to increase the staff of nurses when the funds permit. In March last the institution was affiliated with the Queen Victoria Jubilee Institute, which it is expected will increase the efficiency of the work. The staff now consists of a sister superintendent and three fully-trained nurses. The rules are on the lines of the Queen Victoria Jubilee Institute. Three members of the Medical Society of St. Helens have been nominated as members of the committee.

June 25th.

WALES AND WESTERN COUNTIES.

(FROM OUR OWN CORRESPONDENTS.)

The Disinfection of Midwives.

IN many parts of Wales the woman who lays out the dead also follows the business of midwife, a combination of duties hardly conducive to the speedy recovery of the occupant of the lying-in room. Mr. G. H. Browne, the medical officer of health of Brynmawr, reports a case in which a woman died from puerperal fever; the clothes of the midwife were disinfected, but she subsequently laid out the dead body of her patient, thus re-infecting herself, and then attended and infected another woman. In at least one of the large urban districts in Glamorgan, upon a case of puerperal fever being reported, the ambulance is sent for the midwife in attendance and she is required not only to have her clothes passed through the steam disinfector but also to have a bath in the discharging block of the district hospital under the direct supervision of a nurse who sees that the woman's hands and arms are well soaked in a solution of perchloride of mercury.

A Coroner's Censure of a Quack.

The number of uncertified deaths in the colliery districts of South Wales compares favourably with the rest of England and Wales, and very favourably indeed with certain districts in the county of Durham and in other parts of the North of England. During 1900 only 1·1 per cent. of the total deaths were uncertified in the Rhondda Valley, 0·7 per cent. in Merthyr, and 0·5 per cent. in Aberdare, while in Jarrow the percentage was 5·3, and in South Shields it was 4·3. It must not be supposed, however, that either the quack or the bone-setter are unknown in South Wales. Occasionally they are very much in evidence and only narrowly escape being committed for manslaughter by a coroner's jury. Such an instance occurred recently at Ebbw Vale where an inquest was held upon a child, aged two years, who had died four weeks after receiving an injury to its leg. For about three weeks after the injury a local surgeon attended the child and he considered that it was progressing towards recovery. The child's father, however, was of a contrary opinion and consulted a man who, besides being a puddler and a painter, had inherited from his aunt a receipt for a "salve" which was said to be made of "olive oil, ground ivy, and elder leaf," but which was found upon examination to contain also sulphate of iron with traces of copper and lead ingredients which the puddler was unable to account for. A plaster of this unguent was placed over a small ulcer on the child's leg, and after a few days it died in a convulsion. Upon post-mortem examination the kidneys were found to be diseased and to this cause death was attributed. The coroner, in his direction to the jury, spoke in strong terms of the ignorant, conceited old quack whose only qualification was that he was a puddler and a painter, and whose ignorance in undertaking to treat a case requiring medical skill made him liable to be committed for manslaughter.

The Bath Guardians and Tuberculosis.

One of the most gratifying features in the crusade against tuberculosis is the desire which is being shown by boards of guardians to deal specially with cases of this disease both in the workhouses and among persons receiving outdoor relief. The Bath board recently appointed a special sub-committee to consider what steps should be taken in this direction and the report of the committee was presented to the board on June 19th. There are, it appears, at the present time seven patients suffering from pulmonary tuberculosis in the Bath workhouse and 22 others are in receipt of outdoor relief. The committee recommend that certain wards should be set apart for the isolation of the indoor cases and that a piece of land upon which shelters could be erected should be devoted to their use for open-air treatment. The board decided to discuss at a future date the committee's recommendations, which can hardly be characterised as extravagant, and there ought to be no difficulty in securing their adoption.

Homes for Inebriates.

The Glamorgan County Council have decided not to erect for the present a home for inebriates in the county but to make use of the institution about to be established by the Northampton County Council who will be paid for each patient received from Glamorgan the sum of 10*s.* 6*d.* in addition to the Government grant.

Isolation Hospital for Llandaff and Dinas Powis.

One portion of the Llandaff and Dinas Powis Rural Sanitary District adjoins the borough of Cardiff and another portion is close to Barry. Indeed, to a certain extent the rural district is sandwiched between these two towns, each of which possesses a well-equipped isolation hospital which might very well serve the needs of the rural district. For the past few years the Cardiff corporation have been willing to receive patients from the Llandaff district into the Cardiff sanatorium, but only at what was considered by the Llandaff Rural District Council the exorbitant charge of two guineas per patient weekly. Three months ago, therefore, the Llandaff council erected within their own district at a cost of £300 an iron hospital with accommodation for 10 patients, and they have further decided to expend the sum of £8500 upon permanent buildings. These will include an administrative block, laundry and disinfecting block, and two ward pavilions—one to accommodate 10 and the other four patients. When the scheme is completed there will thus be accommodation for 24 patients and it will be possible to treat three diseases simultaneously. The population of the rural district of Llandaff in 1891 was 18,539, with an average of five persons in each inhabited house; at the last census the population was 23,054, with an average of 4·8 persons per house.

The Bristol Guardians and the Home for Cripples.

For some years past the Bristol Board of Guardians has sent to the Orthopædic Hospital and Cripples' Home at Redlands a certain number of pauper children, for whom it was considered that the special treatment of the hospital would be beneficial. At the present time there are 13 of these children in the institution. The guardians have hitherto paid £13 yearly for each child, although the cost to the hospital has actually been £28. Upon an appeal from the hospital committee the payment has been increased to £20 per annum, an amount which has received the sanction of the Local Government Board.

Convalescent Home for Children at Weston-super-Mare.

The annual meeting of the subscribers to the Weston-super-Mare Convalescent Home for Children was held on June 17th, when it was reported that during 1900 there were received into the institution 280 ailing children, of whom all but five returned to their homes either perfectly well or very considerably improved in health. The accounts of the home show that the adverse balance of £64 at the end of 1899 had increased to £125 at the end of 1900.

Wonford House Hospital for the Insane, near Exeter.

This institution celebrates its centenary this year. When it was opened on July 1st, 1801, there were, besides Bethlem Hospital and St. Luke's Hospital in London, only three public asylums in England—viz., the Manchester Lunatic Asylum the York Lunatic Hospital, and the Friends' Retreat in York. The annual report for 1900, which has just been issued, states that from July 1st, 1801, to Dec. 31st, 1900, there had been 2835 patients admitted, of whom 1245 had been discharged recovered and about 700 as relieved. During 1900 there were 167 patients admitted, the daily average number in the house being 131. The Commissioners in Lunacy in their report dated July 26th, 1900, mention that "the cost of maintenance in the hospital is £2 2*s.* 11*d.* weekly, and 65 of the patients pay less than these costs and 70 over it." The report goes on to say, "This hospital continues to do really charitable work and as long as this is the case we hope it will flourish more and more."

June 24th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Glasgow University.

THE University has settled down again to its usual routine after the excitement of the public celebrations. A steadying influence on a large number of the medical students is the impending ordeal of the final examinations which will occupy the next three weeks or so. The June meeting of the University Court was mainly occupied by matters of no great interest. The secretary reported that a notice of assessment for inhabited house duty on the Bute and Randolph Halls had been received, and that the Edinburgh Court had decided to appeal against a similar assessment made on the MacEwan Hall. It was decided to take joint action against the assessments. A memorial was read from the University Staff Club—which consists of some of the professors, lecturers, and assistants—requesting the establishment in the University of a common room where members of the staff might meet for various purposes. After some discussion the memorial was remitted to the committee in charge of the question of University extension. The Rev. Professor Stewart, D.D., has been appointed to represent the University on the Carnegie University Trust.

Glasgow Western Infirmary.

The directors have issued an appeal for funds to enable them to proceed with the erection and equipment of a new out-patient department. The matter has been urgent for some time, but in view of other claims on the public it has not been pressed. The interests alike of the staff, the medical school, and the patients do not, however, permit of further postponement. The sum required is £40,000, towards which subscriptions amounting to £20,000 have already been received, including £5000 from the Bellahouston trustees and £1000 from the Corporation of Glasgow. It is intended to provide the new dispensary with every equipment needed for the treatment of patients and for the clinical instruction of students.

Glasgow Water-supply.

Glasgow has for many years had reason to be proud of a water-supply which has brought to the city so many sanitary and commercial advantages. The enterprise and public spirit which nearly 50 years ago secured an abundant supply of pure water from Loch Katrine was recognised by the opening of the works by Her late Majesty Queen Victoria. It was no doubt at that time believed that ample provision had been made, not only for present wants, but also to meet the reasonable probabilities of the future. The Act of Parliament under which the Corporation of 1855 proceeded gave authority (1) to raise Loch Katrine four feet above its previous summer level and to draw it down three feet below this level, making seven feet in depth to which the loch could be drawn upon; (2) to take 50,000,000 gallons of water per day for the supply of the city and suburbs; and (3) to construct a line of aqueducts for conveying the water to the city—a distance of 34½ miles. In 1885 the corporation deemed it advisable to obtain from Parliament more extended powers. These included permission (1) to raise Loch Katrine another five feet, thus giving a total of 12 feet free to be drawn upon; (2) to raise Loch Arklet 25 feet above its then level and to lead the water from this loch to Loch Katrine; (3) to take a further 60 000,000 gallons per day for the supply of the city and suburbs; and (4) to construct a duplicate line of aqueducts and service reservoir with lines of pipes to the city. These several undertakings have been in progress during the past 15 years and have now been brought to a successful completion. The new aqueduct is 23½ miles in length and is capable of discharging 70,000,000 gallons per day. The new reservoir has a water surface of 88 acres and a capacity of 700 000,000 gallons. Added to the original reservoir this means that the two combined are capable of storing 24 days' supply at the rate of 50,000,000 gallons per day. The cost of the works has been £1,213,280. It is noteworthy that the water from Loch Katrine undergoes no filtration other than being made to pass through fine gauze netting with a view to separate coarse mechanical impurities, such as leaves, sticks, &c. With a view to avoid pollution the corporation some years ago acquired at a cost of £17,000 the feuing rights of the whole drainage area of Lochs Katrine and Arklet and thus have power to prevent the erection of any houses or buildings in the district. From what has been stated above it is obvious that the practical result of the works just completed is to double the water-supply of the city. Since the opening of the first aqueduct 42 years ago there has been an enormous extension of the city both in area and population. For this and for a continuation of the same processes during many years it is calculated the new aqueduct and the undertakings associated with it secure a full and adequate supply of a natural water which in point of purity as well as in abundance is hardly susceptible of improvement.

The Sale of Poisons by Medical Men.

A meeting of medical practitioners was held in Glasgow on June 19th, to receive a report from the deputation recently sent to the General Medical Council in regard to the sale of poisons in open surgeries by assistants not qualified under the Pharmacy Act. It will be remembered that the Council declined to receive the deputation on the ground that it proposed to deal with questions still *sub judice*. The deputation therefore had no report to make other than to repeat the decision of the Council as this was expressed in the statement made by Sir William Turner. Dr. W. Watson, who presided over the meeting and who was a member of the deputation, stated that the result of their action was in all respects satisfactory. They had succeeded, he considered, in getting the action of the Council into line with the law of the land and he felt certain that no charge similar to the one which gave rise to their action would ever again be brought against a member of the profession so long as he showed reasonable care in the management of his business. Professor Glaister, however, doubted if this consolatory conclusion was altogether justified. The finding of the Council by no means showed that the question was finally settled, but rather indicated the probability of further developments. After some discussion it was decided to continue the committee with instructions to take action if circumstances rendered this necessary. The question was also referred to at a recent meeting of the Pharmaceutical Society in Edinburgh, when the chairman claimed that the General Medical Council had decided that any medical practitioner who habitually left an open surgery stocked with scheduled poisons in charge of an unqualified assistant was liable to be judged guilty of conduct infamous in a professional respect.

Glasgow Ophthalmic Institution.

A handsome stained-glass window has been presented to this institution by Dr. A. Maitland Ramsay. At a meeting of the directors of the Glasgow Royal Infirmary and others Dr. James Kerr Love explained that the window was subscribed for by the members of Dr. Ramsay's post-graduate class and was intended to express their appreciation of the good work done by Dr. Ramsay. In accepting the window on behalf of the directors, Mr. Hugh Brown, Chairman of the Ophthalmic Committee, thanked Dr. Ramsay for his gift and for the extended sphere of usefulness which the Ophthalmic Institution had acquired as a result of the post-graduate courses which have been given during the past few winters.

June 25th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

National Association for the Prevention of Consumption and other Forms of Tuberculosis.

A MEETING of the executive committee of the Dublin branch of the National Association for the Prevention of Consumption and other Forms of Tuberculosis was recently held at the house of the Royal College of Physicians of Ireland. Dr. Lombe Atthill occupied the chair and there were also present Sir Christopher Nixon, Sir John William Moore, Sir Charles Cameron, Professor Anthony Roche, Dr. Alfred R. Parsons, Mr. F. P. Fawcett, Dr. Edmond J. McWeeney, Dr. James Craig, and Mr. J. Knox Denham, honorary secretary. The honorary secretary reported that the Local Government Board for Ireland had consented to have the large poster entitled "Information for Consumptive People and for Those who Live with Them" hung up in every workhouse, hospital, and dispensary waiting-room in Ireland. Dr. Starkie, the Resident Commissioner of National Education for Ireland, had

informed the honorary secretary that he would afford every facility for the giving of the course of lectures proposed by the association to be delivered to the King's scholars in the training colleges at Drumcondra, Marlborough-street, Kildare-street, and Baggot-street. The names of the following gentlemen were suggested as lecturers to the King's scholars in the autumn: Dr. McWeeney, Dr. Craig, Dr. Parsons, and Professor Roche.

An Action for Damages.

It may interest some of the readers of THE LANCET to know that the action for damages brought by the son of the late Mr. Wheeler of Dublin, the well-known surgeon, against the Commissioners of Public Works in Ireland has been decided in his favour after appeal. It is now over a year since Mr. Wheeler's eye was seriously injured by an accident caused as alleged by the imperfect state of the ornamental iron railings in St. Stephen's Green Park. The commissioners pleaded that they were not the owners of the park and therefore were not liable. The Court of Queen's Bench decided against them and now after a delay of a year the Lords Justices of Appeal have by a majority supported that decision. The case is looked upon in Dublin as one of much interest and importance, and arrangements are now being made for an ultimate appeal to the House of Lords.

Royal Colleges of Physicians and Surgeons in Ireland.

A public announcement has appeared stating that material changes have been made in the course for the preliminary examination for the year 1902.

Armagh Sewerage.

At a special meeting of the Armagh Urban Council, held on June 19th, Mr. Kaye-Parry, consulting engineer, showed and explained sketch plans for a scheme for the treatment of 90 gallons of sewage per head per diem. The estimated cost was £4500, and adding £500 for a storm-water filter, the total cost of the works would be £5000. In this way they would have a scheme capable of treating three times as much as the former scheme which was only able to cope with 30 gallons of sewage matter per head per diem, while the English Local Government Board had laid it down that any disposal works should have as their minimum a capacity for the treatment of 90 gallons per head per diem, because 30 gallons was the average dry-weather flow, but in wet weather the flow was sometimes equal to as much as 100 gallons per head per diem; thus, any works the maximum capacity of which was 30 gallons would be quite inadequate. The Armagh Urban Council approved of this scheme and requested Mr. Kaye-Parry to prepare the plans as soon as possible.

Overcrowding in the Londonderry Asylum.

At a meeting of the committee of management of the Londonderry Asylum, held on June 21st, a report was received from the architect and medical superintendent in reference to their visit to Scotland to acquire information as to the selection of buildings and arrangements most likely to be suitable for the proposed extensions at Gransha. In reference to present wants, and with a view to future economy, the following schemes were suggested: (1) to build the two hospitals and infirmaries for male and female patients, 100 of each, and to use what would be the future female side for administration; (2) to build the male hospital and infirmary for 100 patients each, one of the villas to be used at present for administration; and (3) to build the male hospital and infirmary for 100 patients to the future administrative block of the asylum, and the parts of the administrative block not at present required for administrative purposes could be used for the temporary accommodation of a few more male patients. No. 1 scheme was recommended. The matter is to come up for consideration at the next meeting, some of the members being in favour of No. 1 scheme, while others think that the building should be deferred until after the consideration of the Local Government Board's recent circular anent workhouses.

Treatment of Chronic Harmless Lunatics.

The Limavady guardians having had under their consideration the circular issued by the Local Government Board in regard to the treatment and maintenance of chronic and harmless lunatics which was remitted to them from the Derry County Council decided at their meeting on June 24th to recommend the Asylum Committee to adopt the suggested course (No. 2) out of the difficulty, that is, to add, subject to the Lord Lieutenant's direction, by the erection of buildings less elaborate than the original ones, a new department to an existing asylum and to place it under the resident medical superintendent of that asylum. In this way a due measure of care and comfort would be preserved to the class of asylum inmates in question and at the same time the whole of the very inadequate grant in aid made by the Government in respect of all classes of the insane who are kept in immediate connexion with the county or district asylums would be retained.

June 25th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Law as to Workmen's Compensation for Accidents and Medical Aid.

OF late the Chamber of Deputies have been discussing anew the law as to compensation to workmen for accidents sustained whilst at work. A committee of the Chamber have proposed some alterations in Clause 4 of the law of 1898. The clause as amended runs thus:—any workman who sustains an injury may choose his own medical attendant and his own druggist, but in that case the employer shall not be held responsible for medical expenses and for drugs, dressings, or the like, to an extent greater than a sum which shall be fixed by the *juge de paix* of the parish in which the accident happened. This sum shall be arrived at in conformity with the rates adopted by the department for medical aid, or, if such do not exist, with the fees usually ruling in the neighbourhood. Also, if the injured man refuses the medical and pharmaceutical aid offered by the employer and chooses to go to hospital, the employer shall, in addition to the hospital expenses, only pay three-quarters of the daily indemnity. The employer may, in certain cases laid down in preceding paragraphs, submit for the consent of the *juge de paix* the name of a medical man who shall certify monthly as to the condition of the injured workman. M. Poulain put forward an amendment as regards the right of the workman to choose his own medical man. He demanded guarantees in favour of medical men who are now always exploited by the assurance societies. He also asked for the insertion of a clause specifying that surgical operations when necessary should be paid for by the employer. There is no doubt that surgical operations should be paid for by the employer if they are the consequences of an accident.

Cyto-diagnosis in Cerebro-spinal Fluid from Cases of Mental Disorder.

M. Leglas and M. Nageotte reported to the Hospitals Medical Society at the meeting held on June 7th that they had examined the cerebro-spinal fluid from seven cases of early dementia and had found no lymphocytes in it. A chronic alcoholic, of feeble intellect, with delusions of grandeur and epileptiform attacks, was found to give a normal fluid. A syphilitic patient, aged 36 years, who 55 days previously to the examination had had his first epileptiform attack showed no lymphocytosis. On the other hand, five patients in whom before lumbar puncture was performed general paralysis had either been definitely diagnosed or was strongly suspected showed marked lymphocytosis. M. Joffroy said that in his opinion the interesting point from the practical side was to know whether lymphocytosis existed in the early stages of general paralysis. In asylums patients were hardly ever seen at an earlier stage of the disease than that of some months. In one instance, however, he had found lymphocytosis at a very early stage before there was either ocular trouble or defect of speech upon which to found a diagnosis. M. Dupré said that he had practised lumbar puncture in eight patients. In two general paralytics the results were positive. In six others—a case of senile dementia, a case of dementia due to a central lesion, a case of very early dementia, and in three cases of melancholia with delirium—the results were negative. M. Nageotte said that ill-effects followed those operations where there was a small quantity of fluid and where the results were negative. M. Widal said that, as a rule, it was better not to take more than three, or at the very most six, cubic centimetres of fluid. After the operation the patient should lie down in bed for the rest of the day with the head low. Fine and very sharp needles should be used so as not to make a large hole in the dura mater, so that there was less chance of the fluid escaping on

withdrawal of the needle. When these precautions were taken M. Widal's patients sometimes complained of a little nausea, but in the majority of cases they felt no inconvenience. M. Widal thought that the smallest chronic lesion of the meninges could bring about lymphocytosis, but the *méningisme* of Dupré could be observed without lymphocytosis, as M. Widal had recently demonstrated in a case of typhoid fever.

Infantile Mortality in France.

At the meeting of the Academy of Medicine held on June 10th M. Budin gave an account of an inquiry into the above subject undertaken by M. Gillette of St. Joseph and M. Ballestre. This inquiry showed that the mortality in France of infants under one year of age had attained appalling proportions. In Paris the rate was 145 for every 1000 deaths; at Rouen, 254; at Lille, 294; at Dunkirk, 342; and at St. Pol, 509. The mean mortality for all the towns in France was 167. As before this mortality could be remedied the cause must be known, the inquiry showed that of 1000 deaths in infants under one year of age, taking all the towns together, 389 were due to diarrhœa, 147 to pulmonary affections, 171 to congenital feeble health, 24 to tuberculosis, and 50 to contagious diseases. Diarrhœa was by far the most important factor and caused in Paris 380 deaths per 1000, while in Rouen and Nantes the rate rose to over 500 and at Troyes to 682. The monthly curve of diarrhœa mortality showed a marked rise during the hot months and a fall during the cold weather. This diarrhœa, although so fatal, could be avoided by care. In the infants' department which M. Budin had started at the clinic of the faculty diarrhœa had completely disappeared. This excellent result had encouraged the formation of similar departments, and at those under the care of M. Variot, M. de Rothschild, and M. Dubrisay equally good results had been obtained. Pulmonary affections also accounted for a very little number of infantile deaths, but instead of being in the summer their chief incidence fell in the winter. Congenital feeble health could too be combated by appropriate care, and M. Budin had succeeded in greatly reducing the mortality in his wards for such cases. The whole inquiry showed that a large number of these deaths were preventable. One remarkable fact is the variation shown by different departments. The rate varies from the lowest to one nearly double. If all the deaths of young children in France were added together the total would reach the enormous figure of 30,000 per annum—that is to say, 15,000 soldiers less in 20 years time. Most of these deaths could be prevented if the means indicated by the investigators were made use of.

The Drink Question.

Since the passing of the new regulations on "drinks," the consumption of wine in Paris has gone up by 20 or 25 per cent. It is to be feared, moreover, that the consumption of alcohol is not less than before the measures of reform were undertaken. The remission of the octroi has coincided with an extremely bountiful wine crop, and the price of wine has therefore fallen some 50 per cent. The working man, therefore, who used to drink half a litre with his meal now drinks a litre. Should prices rise his habits will have become fixed; he will not reduce his allowance and will consequently spend more than he did before the new regulations were in force. Official statistics for the first four months of 1901 show that the quantity of wine consumed is 17,000,000 hectolitres as against 10,000,000 hectolitres for the corresponding period of last year.

June 25th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

"Typhoid Fever in Rome."

THE Municipal Medical Officer of Health of Rome, Professor Gualdi, has published a work with the above title which is of more than local interest, dealing as it does with the incidence and etiology of a disease so universal in its distribution as typhoid fever. It appears from a careful comparison of statistics that, in spite of the great improvements which have been undoubtedly effected in the sanitation of the large cities of Italy, and especially of the city of Rome, during the last quarter of a century, no great diminution is noticeable in the prevalence of typhoid fever in any of them. No trustworthy statistics on this head are available for Rome itself previously to the year 1876, but it is probable that the proportion of cases to population in the past year is little different from what it was in those days, while compared with some of the intervening years last year's figures come out distinctly unfavourably. Taking the statistics in regard to typhoid fever in Rome subsequently to 1876 we find that a period of low mortality occurred in 1882, since which time the returns show a continual alternation of improvement and aggravation, the rises and falls each being spread over periods of several years' duration. Examining each year separately it will be seen that the disease has two seasons of maximum intensity—one in the winter and spring, during which it assumes an endemic-sporadic character, and one in the summer and autumn, when it becomes endemic in type. The transition between the two, both in the rise and the fall, takes place with great regularity. The maximum generally occurs in October and the minimum usually in April, the regularity of the periods of recurrence being more marked in the morbidity than in the mortality tables. One looks with interest to see whether there are indications that one quarter of the city is more affected than another, but the division into wards is so artificial as to create a difficulty in arriving at any definite conclusion upon this point. The incidence of the disease varies also from year to year, a ward which has escaped one season perhaps suffering heavily the next. It is not possible, therefore, to speak of any particular ward as being specially liable, nor of any other as being particularly immune. On the whole, over an average of years, the disease affected most severely those wards of the city in which new streets of badly constructed houses were rapidly run up during the time of the building speculation mania. The influx of workmen at that period was contemporaneous with an increase in the amount of typhoid fever in the city—an increase which continued for several years (1884–89). From 1889 onwards the disease again diminished until it reached a minimum in 1897, again to recrudesce, however, and to attain another maximum in the three following years, without any special cause that is apparent. The explanation, according to Professor Gualdi, is to be found in a number of different factors, amongst others in the overcrowding of the poor in the new quarters of the town and in the importation of typhoid fever patients with the numerous workpeople who come to the surrounding Campagna at that season. The possibility of a contamination of the water-supply, to which many attributed the outbreaks, was investigated with great care, but it was found impossible to establish any such connexion. The sources, the aqueducts, the pipes, the reservoirs, and the water itself, were all minutely examined and always with negative results. It was natural that suspicion should fall upon the Acqua Paola on account of its origin (the Lake of Bracciano) and the fact that the part of the city chiefly supplied by that source—namely, the Trastevere—had a heavy contingent of typhoid fever patients. But it must be remembered that there is a traditional prejudice against this source which renders the people of that quarter averse to its use for drinking purposes. The Acqua Marcia and the Acqua Vergine (Trevi) must be regarded as above suspicion for numerous reasons; nor in the various palaces, monasteries, and barracks supplied by the Acqua Felice was there any special prevalence of the disease that could lead to suspicion of that water. The reservoirs in the houses must likewise be acquitted of blame since the outbreaks did not occur in a way which such a source of infection would satisfactorily explain. According to Professor Gualdi the disease may be transmitted in three different ways: (*a*) by direct contagion from sick to healthy; (*b*) by infection from food-stuffs; and (*c*) by means of the environment. Direct contagion he believes to be frequent, but it occurs more often in the houses of the Campagna. A brief visit to a typhoid fever patient is sufficient, he thinks, to transmit infection. The food-stuffs most under suspicion are milk and vegetables, and to the former, the sale of which is in the hands of three or four monopolists in Rome who mix it, he attributes a large share in the spreading of infection. The vegetables grown locally are irrigated and washed with the water from the sewers in a restricted suburban zone between Via Nomentana and Via Tiburtina, and this, he thinks, accounts for the frequency of typhoid fever in the San Lorenzo and Nomentana quarters and on the Esquiline. Finally, some houses, the dirty

and overcrowded especially, act as a hotbed for the disease, nursing its germs during each winter and sending them forth in fresh vigour every autumn, the infection being possibly in relation with some saprophytic phase in the existence of Eberth's bacillus and the germ escaping detection in its ectogenous condition. When inhaled by man in dust or ingested with food or drink its pathogenic effects are once more manifested, and the disease is again spread by direct contagion or otherwise.

June 25rd.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Immigrants Suffering from Tuberculosis not to be Admitted.

AN order of the United States Superintendent of Immigration, T. V. Powderly, declares that tuberculosis of the lungs is to be considered a "dangerous contagious disease." Heretofore immigrants having tuberculosis have been admitted unless the disease was in an advanced stage; when they were deported it was because they were apt to become public charges, the contagious nature of the disease not being considered. The new ruling makes the deportation of all persons having tuberculosis of the lungs compulsory. It will involve a more strict examination of immigrants at Ellis Island and the steamship companies will have to make examinations in Europe before accepting steerage passengers. About two months ago the Marine Hospital was asked by the Superintendent of Immigration if tuberculosis of the lungs was to be classed as a contagious disease; the ruling made was that the disease was considered a chronic contagious disease. The ruling was unsatisfactory, as if immigrants were deported under it contests might follow. The law says that an immigrant is to be deported who suffers from a "loathsome or dangerous contagious disease." Under the former ruling immigrants who had tuberculosis of the lungs had to be barred as likely to become public charges. Many were so barred, and though no contests followed it was felt that a more explicit order should be given. Hence, Commissioner Fritchie asked for a more specific statement. The ruling now submitted by the marine hospital service is that tuberculosis of the lungs is considered a dangerous contagious disease, and in accordance with that decision the Superintendent of Immigration has made his order. Dr. G. W. Stoner, head of the medical division of the Immigration Department, states that previously to this rule the percentage of reported cases of tuberculosis has been small. Heretofore, these persons have been placed in the category of contagious or chronic contagious and been referred to a special board of inquiry. As a rule the persons afflicted with this disease were deported on the ground that they were likely soon to become public charges, but many exceptions were made in favour of the sufferer if he or she had a family here who guaranteed the invalid's protection and care. Before the new ruling the board decided which invalid should be deported. This discrimination is now denied it, for deportation is made mandatory; this reduces the action of the board to a mere form. Dr. Stoner added that the majority of cases of tuberculosis came from the larger cities of Norway, Sweden, and the North Sea countries. Dr. Alvah H. Doty, the State health officer and sanitary inspector of the port, says that although the principle of the order is right he believes that it will be impossible for the health officers of this port to put it into execution. Often 4000 emigrants land here in a single day; it is difficult at a glance to detect consumption except in advanced stages, and an adequate examination would therefore compel the retention of these thousands for weeks. A cursory examination, on the other hand, would be useless. He believes that cases of consumption should be kept out by examination of emigrants at the point of embarkation where the work can be done thoroughly. This method would also prevent the contact of cases of tuberculosis with other emigrants in the steerage. Dr. Doty urges that the first step in the carrying-out of the new order should be taken by the inspecting officers at the great ports from which our immigrants come. While not opposed to federal regulations they do not affect him as a State officer and as such he will not attempt to bar out cases of tuberculosis. Officers of steamship lines assumed that the new order would not result in many deportations because consumptive emigrants are not allowed to embark when the disease is detected. The agent of the American line said that medical inspectors are at present so careful in their examination of emigrants sailing for this country that but few cases of tuberculosis escape them; hence the number deported from this port has been small, consumption being the cause, so that the new order will not have much significance. The rate of deportations had been considerably less than 1 per cent. At the office of the Hamburg-American line it was said that the new clause relating to the admission of immigrants of weak physique sufficiently covered those afflicted with tuberculosis. Greater precautionary methods will be observed in the inspections in Holland, but it is not likely that there will be any great reduction in the number of immigrants entering this port, owing to the enforcement of the new order. This line brings into this country about 50,000 persons a year, of whom about 800, or a little more than 1 per cent., show symptoms of consumption in the examination made at Ellis Island; most of these are Jews from Russia, Galicia, and the Balkan States. The agent insisted that the Hamburg-American line took every precaution to prevent the embarkation of cases of tuberculosis; their hospitals and physicians were intended mostly for persons not afflicted with organic diseases; it is not often that application is made to this line for transportation for a patient suffering from tuberculosis.

Government Regulation of Vice in the Philippines strongly Opposed by Women.

Through the influence brought to bear upon the authorities at Washington by women belonging to the United States Temperance Association the army canteen was abolished some time ago. This step was taken in face of the advice tendered to the contrary by army officers of all grades competent by experience to have a good knowledge of the situation. It is now declared that the action on the part of the Government has produced most unfortunate results, has led to increased drunkenness and the widespread prevalence of venereal diseases. So much, indeed, has this been the case that it is proposed that methods for the regulation of vice, somewhat on the model of the British Army Contagious Diseases Act, should be introduced into the Philippines. On June 6th, at the morning meeting of the American Medical Association in St. Paul, Minnesota, two prominent lady members of the United States National Women's Suffrage Association, Miss Susan B. Anthony and the Rev. Anna H. Shaw, protested against the proposed legislation to suppress vice in the Philippines. The Rev. Anna Shaw, in the course of her remarks, said: "When we undertake to regulate and segregate vice in the Philippines it is impossible that we shall not regulate and segregate vice at home. Under our army system parts of the forces are kept in the Philippines and part at home. Then later on they will be changed. If vice is essential in the army and has to be regulated it will have to be regulated both at home and abroad. England has tried the regulation of vice and abandoned it as unsuccessful. France regulates vice and is the most vice-ridden country in Europe." In reply to the speeches of Miss Anthony and the Rev. Anna Shaw Major Louis Seaman, an ex-surgeon in the United States Volunteers, who read a powerfully written paper at the recent meeting of American army surgeons showing that the abolition of the army canteen had been responsible for increased drunkenness and vice of every description among soldiers, urged that the suggested legislation was the best possible remedy for the existing condition of affairs and its enforcement was strongly indicated in the Philippines. When, however, Major Seaman referred to the women speakers as those misguided enthusiasts and declared that they had brought about such a condition by the results of their agitation, the uproar which ensued was so great that he was unable to proceed, and Dr. Reed, the President, prevented any further discussion by announcing the next order of business. There can be no doubt that the views set forth by Major Seaman are thoroughly endorsed by the great majority of American army surgeons. This fact was clearly demonstrated by the resolutions passed at the meeting of the army surgeons some two or three weeks ago to the effect that the meeting was in agreement with Major Seaman, and furthermore resolved that a copy of these resolutions should be sent to each member of the Women's Temperance Association, to whose efforts was due the abolition of the army canteen. It would appear, too, as if the greater number of the members of the American Medical Association sympathised with the proposed adoption of legislative measures to suppress vice in the Philippines but were to some extent

restrained from giving expression to their opinions by the presence of Miss Anthony and the Rev. Anna Shaw. No action in the matter was taken by the convention, but it is probable, if the feminine influence—which carries much weight in this country—does not prove too strong, that Government regulation of vice will be put into practice in the Philippines.

June 17th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Vital Statistics of New South Wales for 1900.

IN spite of the occurrence of the plague the records of the Government statist for New South Wales for the year 1900 show a distinct decrease in mortality and an increase in population. The total deaths numbered 15,118 in 1900, 15,901 in 1899, and 16,661 in 1898. The following table gives some details:—

Deaths from—	1898.	1899.	1900.
Measles	509	209	9
Scarlet fever	83	25	9
Influenza	329	360	197
Whooping-cough	241	487	106
Diphtheria	169	60	63
Diarrhœa	625	468	447
Intemperance	122	126	88
Rheumatic fever	74	87	49
Epilepsy	107	133	90
Convulsions	433	443	380
Bronchitis	777	641	509
Pneumonia	973	927	787
Pleurisy	127	116	81
Croup	86	39	25
Suicide	165	196	145
Totals	4820	4316	2965

In some of the diseases more generally connected with childhood the shrinkage was very noticeable indeed, and in those of the respiratory system the falling-off was almost equally striking. There were, however, increases in other directions. The 104 deaths from plague wholly represented an increase and amongst the preventable diseases the 398 deaths from typhoid fever showed an increase of 51. From old age, apoplexy, syncope, diseases of the digestive organs, and heart disease there was also a greater mortality; cancer carried off 765 victims, an increase of four; and phthisis 1077, an increase of eight. The 50 cases of murder and manslaughter showed an increase of 12, while accidents claimed 992, an increase of 110. Privation was the cause of 25 deaths, a decrease of two.

Health of Sydney.

The first quarterly report for the year 1901 on the health of Sydney submitted to the Water and Sewerage Board by its medical officer, Mr. T. Mailler Kendall, stated that the deaths from general causes were less than in the corresponding period of last year. There had been a decrease in the mortality from diarrhœa and typhoid fever and an increase in that from phthisis and diphtheria. The general sanitary condition had improved and the mortality from preventable disease had diminished in areas of the metropolis formerly insanitary, probably from improved legislation.

Hospitals for the Insane in Victoria.

The Master in Lunacy in Victoria has submitted a special report on the treatment of the insane in that State. He points out that Victoria is much behind New South Wales in its hospitals for the insane. Though there are fewer lunatics in New South Wales that State spends more on their housing and maintenance, the asylums are larger and better equipped, and they are built on the most approved modern plans for the classification of patients, and there is a receiving house for doubtful cases which has existed for 30 years. In Victoria the hospitals are very overcrowded and accommodation for another 600 patients is urgently demanded. A receiving house and a separate hospital for paying patients are also wanted. Dr. McCreery, inspector-general of hospitals for the insane, is in entire agreement with the Master in Lunacy and has pointed out the urgent necessity for reforms for years past, but no notice has been taken by the responsible Minister of the day. A new wing, capable of accommodating 100 patients, has just been opened at the Ballarat Asylum, and another ward of like dimensions will be opened in September. These will relieve the metropolitan asylums to some extent. Dr. McCreery also claims that the percentage of cures effected is better than is believed, being as follows:—1899: Victoria 44·44, New South Wales 42·96, England 39·26; 1900: Victoria 40·09, New South Wales 38·88.

Claim against a Dentist.

A patient recently brought an action against a Sydney dentist for £200 damages for injuries received through the alleged negligent and unskilful manner in which he had made, set, and adjusted certain artificial teeth. The chief damage alleged was that the irritation of the badly fitting teeth had originated a cancer of the jaw. The judge said that he was of opinion that the work was of a defective character, but he was doubtful whether he ought to allow damages for more than the amount which the plaintiff had paid for the work. On the whole, however, the balance of evidence was in favour of the view that the cancer was the result of the careless work of the defendant and the judge found for the plaintiff for the amount of £50.

May 17th.

Obituary.

FRANCIS WILLIAM WARRINGTON, M.D. ST. AND., M.R.C.S. ENG., L.S.A., J.P.

DR. F. W. WARRINGTON was a fine example of the old school of family practitioner and his death is a great loss to Congleton, where he had been in practice for nearly 40 years, and also to the surrounding neighbourhood, for he was well known and esteemed over a considerable portion of the county. Dr. Warrington was born in 1839 and was the son of a respected Mayor of Congleton who held office for several years. He was educated at Longnor School in Staffordshire, a well-known academy in those days, and at Plymouth Grove, Manchester. After his pupilage at the North Stafford Infirmary he entered as a student at King's College Hospital, where he afterwards filled the positions of assistant house physician and resident accoucheur. He obtained the L.S.A. diploma in 1861 and the M.R.C.S. Eng. and the M.D. St. Andrews in 1862, commencing practice in his native town shortly afterwards. His undoubted skill and ability, together with his sound appreciation of human nature, stood him in good stead and enabled him to establish the very large practice which he carried on until his death, always endeavouring to keep abreast of the times. His sympathetic and noble nature gained for him the warmest affection of his patients and he was trusted and held in high esteem by his professional brethren. Dr. Warrington was remarkable for his untiring energy and the physical and mental work accomplished by him at times would have been an impossibility to most people. He was strongly attached to his profession and his medical friends, who are very numerous, will always delight to linger on the remembrance of his graphic and humorous descriptions of incidents in his medical career. Many live to mourn the death, for he was a man of wide sympathies and a generous benefactor, no story of real sorrow or distress ever being unheeded by him.

DAVID CHARLES DAVIDSON, L.R.C.P., L.R.C.S. EDIN., LIEUTENANT-COLONEL, I.M.S.

THE death of this officer in his fiftieth year took place on May 2nd, 1901, after a long and severe illness, the result of overwork and the effects of the climate of India. After qualifying in Edinburgh he held various hospital appointments in England, amongst them being that of surgeon to the Dorset County Hospital and surgeon to

the Birkenhead Hospital. In 1887 he entered the Indian Medical Service and proceeded to India in the following year. After a short period of military duty with the 14th Native Infantry and the 3rd Bombay Light Infantry he was appointed to act as civil surgeon of Shikarpur, and had charge of a large jail with over 1000 prisoners. While superintending the construction of a large portion of the Scinde railway he became a victim to Scinde fever and he came to England to recruit his health. On his return to India he was appointed to the civil surgeoncy of Kaira in Guzerat and subsequently acted as health officer to the Bombay municipality. In 1896 he was ordered to Burmah on field service, where he had charge of a base hospital for native troops. In 1898 he went to Satara as civil surgeon and did some good work at the civil hospital there. While there he added, with the sanction of the Government, a new wing to the building. In 1891 and 1892 he acted as superintendent of Mahableshwar.

In 1894 he was appointed senior surgeon and professor of surgery in the Sir Jamsetjee Jejeebhoy Hospital and lecturer in the Grant Medical College. A year later he was appointed civil surgeon of Dharwar. In 1896, after three months' furlough in England, he was recalled to India for service in connexion with plague and famine work. He was appointed surgeon to the Goculdas Tejpal Hospital in Bombay, but his health breaking down he again obtained furlough. He returned to India as superintendent of Mahableshwar. Colonel Davidson did good work there and at other places in connexion with the plague although he was in constantly failing health. In December of last year he became seriously ill and left India on furlough in March, but after reaching England he only survived 20 days. The deceased officer leaves a widow, three sons, and several daughters.

Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—In June, 1901, the following candidates passed in the subjects indicated:—

Surgery.—C. H. G. Atkyns, Birmingham; H. de T. Barber (Section I.), Geneva and St. Mary's Hospital; F. J. Birks (Sections I. and II.), Sheffield; E. Courtauld (Sections I. and II.), Royal Free Hospital; W. Garstang (Sections I. and II.) and W. Hickey (Section I.), Manchester; H. C. Hocken (Section I.), Cambridge and Westminster Hospital; D. T. Jones, Middlesex Hospital; R. A. Jones (Section II.), St. Mary's Hospital; D. R. Lookwood (Section I.) and F. M. Payne (Section I.), Royal Free Hospital; B. B. Sansom (Section I.), St. Thomas's Hospital; H. H. Sloane (Section I.), St. Bartholomew's Hospital; H. Smith (Section II.), Birmingham; A. W. D. Thomson, St. George's Hospital; and L. G. W. Tyndall, St. Mary's Hospital.

Medicine.—C. H. G. Atkyns, Birmingham; F. J. Birks (Sections I. and II.), Sheffield; E. Courtauld (Sections I. and II.), Royal Free Hospital; E. N. de V. Dawson (Section II.), St. Thomas's Hospital; J. J. Haverson, London Hospital; W. Hickey (Section II.), Manchester; W. J. Hogg (Sections I and II.), Belfast and Middlesex Hospital; R. A. Jones (Section II.), St. Mary's Hospital; E. O. Libbey, Leeds; D. Morrow (Sections I. and II.), Middlesex Hospital; A. U. Parkhurst, St. Mary's Hospital; H. H. Sloane (Section I.), St. Bartholomew's Hospital; H. Smith (Sections I. and II.), Birmingham; W. A. Sugden, St. Mary's Hospital; and J. Ward (Sections I. and II.), Sheffield.

Forensic Medicine.—C. H. G. Atkyns, Birmingham; F. J. Birks, Sheffield; J. W. Bowd, St. Bartholomew's Hospital; E. Courtauld, Royal Free Hospital; J. J. Haverson, London Hospital; W. J. Hogg, Belfast and Middlesex Hospital; E. O. Libbey, Leeds; D. Morrow, Middlesex Hospital; A. U. Parkhurst, St. Mary's Hospital; and J. Ward, Sheffield.

Midwifery.—J. W. Bowd, St. Bartholomew's Hospital; R. C. Curtis, Aberdeen and Charing-cross Hospital; R. A. Dunn, Royal Free Hospital; A. E. Henton, St. Mary's Hospital; W. Hickey, Manchester; G. M. Seagrove, St. Bartholomew's Hospital; and A. H. Thomas, St. Mary's Hospital.

The diploma of the Society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery: C. H. G. Atkyns, J. W. Bowd, E. Courtauld, W. Garstang, J. J. Haverson, W. J. Hogg, D. T. Jones, R. A. Jones, A. U. Parkhurst, A. H. Thomas, L. G. W. Tyndall, and J. Ward.

UNIVERSITY OF CAMBRIDGE.—At the examinations for medical and surgical degrees, Easter term, the following candidates were successful in the subjects indicated:—

THIRD EXAMINATION.

Part I.—F. H. M. A. Beckett, B.A., H. Selwyn; L. Bousfield, B.A., Pembroke; A. P. Bowler, B.A., Sidney Sussex; J. Bradford, B.A., Emmanuel; A. S. Bradley, B.A., Caius; H. C. Brown, B.A., Emmanuel; G. V. Bull, B.A., Caius; C. Burroughs, B.A., Emmanuel; F. R. Carroll, B.A., Trinity; E. I. Claxton, B.A., and G. D. Franklin, B.A., King's; J. C. W. Graham, B.A., Trinity; G. S. Graham-Smith, B.A., Pembroke; E. H. Harrisson, B.A., Clare; E. F. G. T. Heap, B.A., Sidney Sussex; J. P. Headley, B.A., and H. T. Hodgkin, B.A., King's; A. C. Hudson, B.A., and H. L. P. Hulbert, M.A., Trinity; W. W. Jeudwine, B.A., H. Selwyn; A. P. Laycock, B.A., St. John's; G. E. Loveday, B.A., Caius; J. M'Bryde, B.A., King's; D. J. Morgan, B.A., St. John's; A. E. Naish, B.A., and S. Nathan, M.A., Trinity; C. de C. Pellier, M.A., Clare; D. Pennington, B.A., Caius; J. W. Rob, B.A., St. John's; A. R. Roche, B.A., Queens'; R. Rolfe, B.A., Clare; F. Sanger, B.A., St. John's; B. B. Sapwell, B.A., Corpus Christi; C. H. Sedgwick, B.A., Sidney Sussex; F. E. Shipway, B.A., Christ's; A. M. Simpson, B.A., King's; J. E. B. Snell, B.A., B. Spearman, B.A., and R. Spearman, B.A., Caius; G. L. Tuck, B.A., Emmanuel; H. Wacher, B.A., St. John's; G. H. L. Whale, B.A., Jesus; J. Wharton, B.A., St. John's; G. R. Wilson, B.A., Trinity; H. M. Wilson, B.A., Trinity Hall; and F. E. Wood, B.A., Downing.

Part II.—A. P. M. Anderson, B.A., Trinity; A. H. Brehaut, B.A., H. Selwyn; A. R. M. Brenan, B.A., Trinity; J. M. Brydone, Jesus; A. E. Carver, B.A., Clare; F. J. Child, M.A., Christ's; J. S. Clarke, M.A., Caius; L. S. Gaskell, M.A., Christ's; C. H. Glenn, B.A., Pembroke; J. A. Glover, B.A., St. John's; H. Gordon-Smith, B.A., Trinity; A. W. Greig, B.A., Jesus; M. C. Hayward, M.A., Caius; A. E. Hodder, B.A., King's; A. C. Ingram, B.A., St. John's; A. S. Mellor, B.A., King's; C. H. Miller, B.A., Trinity; F. R. Murray, B.A., St. John's; G. H. Orton, B.A., J. C. S. Rashleigh, M.A., and L. Reynolds, B.A., Trinity; H. H. Riddle, B.A., Peterhouse; R. D. Smedley, B.A., Pembroke; A. E. Taylor, B.A., Downing; N. F. Tiesehurst, M.A., Clare; J. L. Timmins, B.A., Emmanuel; W. E. Tucker, Caius; F. K. Weaver, B.A., Trinity; and R. F. Williams, B.A., Caius.

During the academical year just closed 20 candidates were admitted to the M.D. degree, one to the M.C., 50 to the M.B., and 61 to the B.C.

UNIVERSITY OF BRUSSELS: JUNE EXAMINATION.—The following practitioners passed and obtained the M.D. degree:—

L. Harris-Liston, Exeter; G. H. Lancashire, Didsbury; H. C. Procter (Honours), Ladysmith, Natal; E. F. Lamport (Honours), London; R. Haslam (Honours), London; and T. B. Haig, London.

FOREIGN UNIVERSITY INTELLIGENCE.—*Berlin:* Dr. Arthur Nicolaier of Göttingen has been recognised as *privat-docent* of Internal Medicine and Dr. Johann Friedenthal as *privat-docent* of Physiology.—*Bordeaux:* Dr. Bégouin has been appointed *professeur agrégé* of Surgery and Dr. Andérodias *professeur agrégé* of Midwifery.—*Breslau:* Dr. H. Sachs, *privat-docent* of Neurology, has been promoted to an Extraordinary Professorship.—*Erlangen:* Dr. Graser, Professor of Surgery in Rostock, has been offered the chair vacated by the death of Dr. von Heineke.—*Groningen:* Dr. Huizinger, Professor of Physiology, is retiring. Dr. Hamburger of Utrecht has been appointed to succeed him.—*Halle:* Dr. Gebhardt has been recognised as *privat-docent* of Anatomy.—*Jurieff (Dorpat):* Dr. A. N. Solovieff of Moscow has been appointed to the chair of Midwifery. Dr. Gubareff of Moscow has been appointed Extraordinary Professor of Midwifery and Children's Diseases.—*Leyden:* Dr. van Walsen has been appointed Professor of Pathological Anatomy.—*Lille:* Dr. Lambert has been appointed *professeur agrégé* of Surgery.—*Lyons:* Dr. Villard and Dr. Tixier have been appointed *professeurs agrégés* of Surgery, and Dr. Fabre *professeur agrégé* of Midwifery.—*Montpellier:* Dr. Jeanbrau has been appointed *professeur agrégé* of Surgery.—*Moscow:* Dr. Gulevich of Kharkoff has been appointed Extraordinary Professor of Medical Chemistry. Dr. Karusin has been appointed Professor of Descriptive Anatomy.—*Nancy:* Dr. Michel has been appointed *professeur agrégé* of Surgery.—*Paris:* Dr. Photinos Panas has been obliged to give up his chair of Ophthalmology on account of the state of his health. Dr. Lapersonne of Lille has been appointed to succeed him. Dr. Marion, Dr. Gosset, and Dr. Auvray have been appointed *professeurs agrégés* of Surgery, and Dr. Demelin and Dr. Potocki *professeurs agrégés* of Midwifery.—*Prague (Bohemian University):* Dr. Heinrich Chalupecky has been recognised as *privat-docent* of Ophthalmology.

A CENTENARIAN.—It is stated that Mrs. Priest, who died at Bath on June 20th, had attained the age of 104 years and 10 months. The deceased had had 10 children, of whom three sons served in the Crimean war, and there are living 34 grand-children and nearly a dozen great-grandchildren.

QUALIFICATIONS OF SANITARY INSPECTORS.—At a recent meeting of the St. Germans (Cornwall) District Council a candidate was selected for the post of sanitary inspector who did not possess any certificate of sanitary knowledge. At the meeting of the council held on June 20th it was, however, resolved that the question of the appoint-

ment should be reconsidered and a certificated sanitary inspector appointed.

UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.—It is stated that Dr. Isambard Owen has been asked to succeed the late Professor J. Viriamu Jones as principal of the University College of South Wales and Monmouthshire.

IN MEMORIAM, QUEEN VICTORIA.—Towards the fund to be raised for completing the Preston and County of Lancaster Royal Infirmary as a memorial to the late Queen Mr. Richard Calvert, cotton-spinner, of Preston, has promised £5000.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—A numerous gathering of the members of the above society and their friends assembled to hear the Cavendish Lecture on "Acute Cardiac Failure," which was delivered by Sir Richard Douglas Powell at the Town Hall, Hammersmith, on June 21st. The lecture, which is published at p 1811 of our present issue, was followed by a conversazione in the large hall where were exhibited various medical and surgical novelties by well-known firms.

CHARING CROSS HOSPITAL.—Professor Clifford Allbutt, in his address to the students of the Charing Cross Hospital Medical School on the occasion of the presentation of prizes on June 28th, referred in the course of his remarks to the disastrous effect of extinguishing the natural curiosity born with every man to inquire into the nature of things. He also improved the opportunity by administering a crushing answer to those who have sought to discredit the hospitals by saying that patients were experimented upon by the physicians in attendance. An apt quotation from Hobbes and a singularly lucid explanation of the scientific methods of teaching medicine at the present time concluded a most interesting and earnest address which was greatly appreciated by the numerous company assembled at the Charing Cross Hospital Medical School.

CONVERSAZIONE OF THE WORSHIPFUL SOCIETY OF APOTHECARIES OF LONDON.—A conversazione was held in the Apothecaries' Hall, Water-lane, on June 26th when a very distinguished company was present to witness the many scientific exhibits displayed and to listen to the excellent programme of music that was provided. The visitors were received by the Master, Mr. Charles Browne, with whom were the wardens, Mr. T. E. Burton Brown and Mr. William Parson, and the clerk, Mr. James Richard Upton. In the Wheeler room a very excellent series of natural colour photographs were shown upon the screen by Mr. E. Sanger-Shepherd, who is the author of the process, while in the large hall there was a demonstration of wireless telegraphy, and in other rooms various electrical phenomena were illustrated and the electrophone was in working order so that the visitors could hear the various entertainments going on in London.

PAST AND PRESENT WEST LONDON HOSPITAL DINNER.—The great success that has attended the work of the post-graduate school attached to the West London Hospital was the occasion of much congratulation and rejoicing at the Past and Present West London Hospital dinner held at the Empire Rooms, Trocadéro, Piccadilly-circus, London, W., on June 25th. The chairman, Mr. F. Swinford Edwards, was well supported in numbers, and speaking to the toast of "The West London Hospital" pointed out how well suited the hospital was to supply the wants and necessities of the post-graduate school. Since 1896 over 270 men had gone through the school and the financial position resulting from the school's success was so satisfactory that new buildings were in progress. It was very pleasant to hear the reply to this toast from Mr. A. Hubbard, J.P., one of the executive committee of the hospital, and it was quite evident that there was no want of harmony between the medical staff and the hospital management. Mr. L. A. Bidwell proposed "The Post-Graduates" and ascribed the popularity of the school to the fact that the medical men attending were not shown a collection of rare cases but saw every-day practice. The members of the West London post-graduate course enjoyed the advantages of studying in the wards of a hospital and also assisted at operations.

Parliamentary Intelligence.

HOUSE OF COMMONS.

THURSDAY, JUNE 20TH.

The Examination of Invalided Soldiers.

Sir ELLIOTT LEES asked the Secretary of State for War whether he was aware that officers and men invalided home by medical boards at Johannesburg and Pretoria had to pass additional boards at Bloemfontein and Cape Town; and if invalided home from the front in order to undergo operations in England were occasionally detained for weeks at Wynberg Hospital, near Cape Town; whether, in the interests of the patients and the taxpayers, orders could be given that all patients about to undergo operations in England should be sent home with as little delay as possible; and whether in all cases the number of medical boards before which invalided officers and men had to pass prior to being sent home could be reduced.—Mr. BRODRICK replied: I am not aware that persons invalided home are examined by more than one board except in cases where the patient on his way to the coast develops further illness and has to undergo examination with a view to the extension of his sick leave. The information at my disposal tends to show that patients are not detained unnecessarily at Wynberg. I will, however, draw the attention of the Commander-in-Chief in South Africa to the points raised by the question with a view to his taking such action as may be deemed necessary.

The Army Medical Department.

Captain NORTON asked the Secretary of State for War whether, in view of the fact that there was at the head of the Army Medical Department at the present time only an Acting Director-General shortly about to retire from the service, he would say when a new Director-General would be appointed.—Mr. BRODRICK replied: No; I can make no statement on this subject. Various measures for the reorganisation of the Medical Department are in progress.

Medical Officers of Health in Scotland.

Mr. WEIR asked the Lord Advocate, as representing the Secretary for Scotland, if he would state the number of medical officers of health appointed in Scotland to districts other than burghs since Jan. 1st, 1898, and would he say how many of these medical officers held a public health diploma.—The LORD ADVOCATE replied: Five medical officers of health holding a public health diploma have been appointed in Scotland to districts other than burghs since Jan. 1st, 1898. In addition 17 appointments have been made by district local authorities, but as the medical men did not possess the statutory qualifications the appointments were not in terms of the Public Health Acts and were not recognised by the Local Government Board.

FRIDAY, JUNE 21ST.

Fish Culture.

Mr. GERALD BALFOUR, President of the Board of Trade, announced that he proposes to appoint a departmental committee "to inquire and report as to the best means by which the State or local authorities can assist scientific research as applied to problems affecting the fisheries of Great Britain and Ireland, and in particular whether the object in view would best be attained by the creation of one central body or department acting for England, Scotland, and Ireland, or by means of separate departments or agencies in each of the three countries."

TUESDAY, JUNE 25TH.

Admission of Disease from Abroad.

Sir HOWARD VINCENT asked the President of the Local Government Board (1) if his attention had been called to the fact that all aliens suffering from dangerous contagious diseases were excluded from admission to the United States under the Immigration Laws of Congress, and that by a recent decision of the Washington Treasury tuberculosis of the lung was henceforth to be so regarded; and (2) having regard to the importance of excluding such diseases, whether he would introduce the same or analogous regulations as those laid down by his predecessor at the time of the cholera epidemic at Hamburg to keep out that disease.—Mr. GERALD BALFOUR said that the answer to the first paragraph of the question was in the affirmative. As regards cholera cases the regulations required the isolation in hospital of persons who arrive in this country suffering from the disease and the supervision by the local authorities of other persons landing from an infected ship. It did not appear to him that similar regulations could be made with regard to such a disease as tuberculosis.

Typhoid Fever among the Troops.

Lord STANLEY, in reply to Sir WALTER FOSTER, said that for the four weeks ended April 26th the approximate number of admissions among the troops in South Africa for typhoid fever was 1434 and the number of deaths 137.

WEDNESDAY, JUNE 26TH.

Sale of Intoxicating Liquors to Children Bill.

The House decided after some debate to refer this Bill to the Standing Committee on Law. In its present state the measure prohibits the sale of intoxicating liquors to children under 16 years of age, but it is understood that when it comes before the Grand Committee its promoters, in order to conciliate opposition, will offer to reduce the age limit to 14 years. If this reduction is made the Bill may reasonably be expected to become law during the present session.

Beer Bill.

This Bill also was referred to the Standing Committee on Law. It divides beer into two classes—"malt beer" which is defined as beer brewed from barley malt with the addition only of hops, yeast, and water, and "part malt beer," defined as any beer other than "malt beer"—and it provides for the two classes being labeled so that the public may distinguish between them. The Bill is strongly opposed, and is not likely to be passed during the present session.

ROYAL COMMISSION ON ARSENICAL POISONING.

THURSDAY, JUNE 20TH.

THE Commission held a meeting for the examination of witnesses in the Westminster Palace Hotel, London. Lord KELVIN occupied the chair, and the other members of the Commission present were Sir William Church, Sir W. Hart-Dyke, M.P., Professor Thorpe, Dr. B. A. Whitelegge, and Mr. Cosmo Bonsor, with Dr. G. S. Buchanan, of the Local Government Board, secretary.

Mr. CLARE SEWELL READ, ex-member of Parliament and ex-secretary of the Local Government Board, said that he had been appointed along with Mr. Henry Stopes to give evidence on behalf of the Central Chamber of Agriculture. He had been engaged in farming for 60 years, but he had no practical acquaintance with either malting or brewing. He did not consider that sugar in beer was necessarily injurious to health, but in his opinion some of the glucoses used were injurious. He was a member of the Beer Materials Committee, and his view was that if the minority report of that body had been adopted it was quite possible that the recent beer-poisoning epidemic might have been averted. For one thing there would have been proper supervision of the materials from which beer was made. As for the present action of the Somerset House authorities, while it was a very good safeguard for the revenue, it was a very poor safeguard for the public health. He endorsed the recommendation of the Select Committee of the House of Commons for the appointment of a court of reference. Such a court should be composed of competent experts and sound business men, and its duty would be to fix standards of purity and decide other points arising out of the Sale of Food and Drugs Acts. It was perfectly ridiculous to ask a farmer for a guarantee that his barley was free from arsenic, and if he were a maltster he should simply guarantee that he had used good fuel, and if a hop-grower that he had exercised all due care in the growth and curing of his hops. Some of the gentlemen who gave evidence at the inquiry of the Manchester Central Brewers' Association also gave evidence before the Beer Materials Committee. When they gave the latter evidence they said—and they convinced the majority of the committee—that there were no ingredients which were harmful to health used in brewing, whereas in this later investigation they seemed to believe that almost every ingredient used in brewing was more or less poisonous. It seemed to him just this—that they could prove anything when they liked and nothing when they desired to do so. The effect upon farmers of these scientific scares, which mostly proved to be wrong, was that when there was a really good and sound scientific discovery they were very slow to believe it and that was bad for farmers and the country generally. He was chairman of the Adulteration Committee upon whose report the Sale of Food and Drugs Act, 1875, was founded. The committee wished to bring beer into that Act but they found that they could not do so because there was no legal definition of beer. Asked whether he would propose a definition of beer witness said that he advocated the passing of the Beer Bill now before the House of Commons. It was true that the Bill was not a pure-beer Bill, but it had a declaration and a definition of what beer should be and he thought that it would have been disrespectful to this Royal Commission if the promoters of the Bill had attempted to legislate on the question of arsenic in beer. In connexion with the drawing up of the report of the Adulteration Committee on which the Sale of Food and Drugs Act was founded they felt it very difficult to define adulteration. They decided that an article of the nature, substance, and quality demanded by the customer should be given and he believed that, generally speaking, this had proved a successful definition. He had had a considerable experience in investigating sewage-farming, for he was appointed to a departmental committee which inquired into all the systems of sewage-farming pursued in Great Britain and on the continent. The most filthy substances were used for the purposes of irrigation, not in but over the soil and very frequently over the different vegetables and the grass, and he never heard of any disorder or poisoning happen from stock eating the vegetables or the grass or from the milk of the stock. He hoped that this Commission would report in favour of some such measure as the Beer Bill. He should like to see more diligent supervision exercised over the ingredients used in beer by the medical officers of health or other officers of the local authorities and in addition the establishment of a standard of purity. In his opinion arsenic in malt came from bad fuel and consequently he thought that gas coke should be prohibited. He was not opposed to the use of glucose or invert sugar by brewers, but he thought that the fact of the use of either of these things should be made known.

Mr. HENRY STOPES, maltster's architect and engineer, in the course of examination said that he had invented and designed two-floor malt kilns and had designed and supervised the erection of the largest pneumatic malt house in Britain. In experience it was found that they could not get malt suitable for brewing in this country without bringing the products of combustion into direct contact with the grain. It was necessary to have these products as well as hot air. Kilns had been tried on the German principle, but they had been a failure in this country. He did not think that sufficient evidence had been produced of the presence of arsenic in barley or hops. Superphosphates and other manures added to land would supply a negligible amount, but it had not yet been proved, although experiments had been conducted with a view to testing it, that plants or seeds picked up arsenic in any form. In the various uses of potatoes in Germany, if the tubers picked up arsenic it would certainly have been found. No harm had ever been observed in the experiments at Rothampsted with 3½ cwts. of superphosphates per acre. The loose charges made against manures in this connexion were injurious to the farmers. It was the same also with regard to fuel. The amount of arsenic in coal, coke, charcoal, or other fuel was exceedingly small; in many oven cokes there was absolutely none. He had always advised maltsters to stop the use of gas coke; but that was because of the fumes being disagreeable to the workers. As for charcoal, it was more expensive than the dearest anthracite coal, and he thought that hop-growers who had adopted it should be encouraged to continue its use. The sulphur used by maltsters or hop-growers was not sufficient to carry more than a negligible amount of arsenic through to the beer. He desired to confirm the evidence of other witnesses that arsenic was never found in barley. The use of substitutes for hops was small and now that entry of use by brewers would shortly have to be made it was probable that no risk of poisoning would arise from this source. The use of substitutes for malt was rapidly increasing. It already amounted to 2,000,000 quarters per annum. The extreme cheapness of glucose, sugar, and some of the other adjuncts had led to depreciation in the price of barley and excessive competition had led to the use of inferior fuels by maltsters. As these substitutes did not possess the vital characteristics of barley malt, which constituted the essential element of beer, recourse had necessarily been made to large quantities of powerful antiseptics as preservatives in beer. Witness supported Mr. Read in his advocacy of the establishment of a court of reference and the fixing of standards of purity.

On the conclusion of Mr. Stopes's examination the Commission adjourned.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

ANDERSON, JOSEPH, M.B., C.M. Aberd., has been appointed Honorary Surgeon to the Preston and Jounty of Lancaster Royal Infirmary, vice J. A. Rigby, M.D. Lond., appointed Consulting Surgeon.

ANDREWS, HENRY RUSSELL, M.D., B.S. Lond., L.R.C.P. Lond., has been re-appointed Obstetrical Registrar and Obstetrical Tutor to the London Hospital.

AUSTEN, HAROLD, M.D., B.S. Lond., M.R.C.S., L.D.S. Eng., has been appointed Assistant Dental Surgeon to the Dental Hospital of London.

BADST, C. T. U., L.R.C.P., L.R.C.S. Edin., has been re-appointed Medical Officer of Health of Willington Quay, Northumberland.

BENSLEY, V. C., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Third Resident Surgeon at the Somerset Hospital, South Africa.

CADDY, ADRIAN, M.B. Lond., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Resident Medical Officer to the Parish Infirmary, Brownlow-hill, Liverpool.

CAMPBELL, P. R., M.B., C.M. Edin., has been appointed Medical Superintendent of Caterham Asylum, Surrey.

CLARK, SYDNEY, M.R.C.S., Eng., L.R.C.P. Lond., has been appointed Honorary Visiting Medical Officer to the Victoria Home for Invalid Ladies, vice Dr. Chadwick, appointed Consulting Physician.

CRINION, L. A. J., M.B., B.Ch. R.U.I., has been appointed Medical Officer of Blessington No. 1 Dispensary District in the Naas Union.

DON, JAMES, M.B. Aberd., has been appointed Public Vaccinator of Newcastle-upon-Tyne.

EAMES, E. S. B., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed District Medical Officer to the Honiton Union.

EHRICH, F. W., M.D., C.M. Edin., has been appointed Pathologist and Bacteriologist to the Corporation of Bradford.

FARRANT, CHARLES, L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Medical Officer for the St. James's District by the Taunton Board of Guardians, vice Samuel Farrant, resigned.

GRUGGEN, WILLIAM, L.R.C.P. Irel., L.F.P.S. Glasg., D.P.H. Camb., has been appointed Medical Officer of Health of Tring.

HARRIS, J. H., M.R.C.S. Eng., L.S.A., D.P.H. Cantab., has been re-appointed Medical Officer of Health for the Borough of Dartmouth.

HILL, CHARLES A., M.B., B.A. Cantab., D.P.H. Vict., has been appointed Senior Assistant Physician to the Liverpool Hospital for Consumption and Chest Diseases.

HOOD, N. L., M.D., D.C. Cantab., has been appointed Honorary Surgeon to the York County Hospital.

HUNT, J. W., M.B., has been appointed Second Resident Surgeon at the Somerset Hospital, South Africa.

LE FANU, G. E. H., M.B. Aberd., has been appointed Assistant Medical Officer to the Derby Borough Asylum.

MAY, JOSEPH, M.R.C.S. Eng., L.S.A., has been re-appointed Medical Officer of Health of the Borough of Devonport.

MOORE, S. G., M.B., Ch.B. Vict., D.P.H. Eng. Conj., has been appointed Medical Officer of Health of Huddersfield.

RAY, J. H., M.B., Ch.M. Vict., F.R.C.S. Eng., has been appointed Assistant Surgeon to the Manchester Children's Hospital.

RICHARDSON, S. W. F., M.B., B.S. Lond., F.R.C.S. Eng., has been appointed Senior Resident Surgeon at the Somerset Hospital, South Africa.

RIMMER, J. F., M.B., Ch.B. Vict., has been appointed Third Assistant Medical Officer at Leavesden Asylum, Hertfordshire.

SAUNDERS, J. C., L.R.C.P. Edin., M.R.C.S. Eng., has been appointed Medical Officer of the Bootle Division of the West Derby Union.

SHARP, H. C., M.B., B.C. Cantab., has been re-appointed Medical Officer of Health of Truro.

WALDO, F. J., M.D. Cantab., M.R.C.S. Eng., D.P.H. Eng. Conj. Bd., has been appointed Coroner of the City of London.

WIGHAM, W. H., M.B. Durh., M.R.C.S. Eng., has been re-appointed Medical Officer of Health for the South Molton (Devon) Urban District Council and also Medical Officer of the Chittlehampton District by the South Molton Board of Guardians.

WILLIAMS, HERBERT, M.D., L.R.C.P. Lond., M.R.C.S. Eng., D.P.H. Cantab., has been appointed Medical Officer of the Port of London.

WOOD, W. B. H., M.B. Lond., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Medical Officer to the New Sanatorium at Delamere Forest.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BRISTOL ROYAL INFIRMARY.—Anæsthetist and Junior House Surgeon. Also Casualty Officer. Salary at rate of £50 per annum, with board, lodging, and washing.

CARLISLE DISPENSARY.—Resident Surgeon, unmarried. Salary £150 per annum, with apartments, not board.

CHESTER GENERAL INFIRMARY.—House Physician. Salary £90 per annum, with residence and maintenance. Also House Surgeon. Salary £100 per annum, with residence and maintenance.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Second House Physician for six months. Salary at rate of £80 per annum, with board, residence, and washing.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—Junior House Surgeon, unmarried. Salary £80 per annum, with board, lodging, and washing.

CLINICAL RESEARCH ASSOCIATION.—Assistant in the Bacteriological Department. Salary £150 per annum.

COUNTY ASYLUM, Carmarthen.—Junior Assistant Medical Officer, unmarried. Salary £130, advancing £10 yearly to £150, with furnished apartments, board, washing, and attendance, without stimulants.

COUNTY BOROUGH OF BURTON-UPON-TRENT.—Medical Officer of Health and Public Analyst. Salary at rate of £350 per annum for the Medical Officership and £50 per annum for the office of Public Analyst, and authorised disbursements.

COUNTY BOROUGH OF WEST HAM.—Assistant Medical Officer, unmarried. Salary £200 per annum, with board, washing, and furnished apartments.

CUMBERLAND AND WESTMORLAND ASYLUM, Garlands, Carlisle.—Senior Assistant Medical Officer, unmarried. Salary £150 a year, rising to £180, with board, lodging, &c.

DENBIGHSHIRE INFIRMARY, Denbigh.—House Surgeon. Salary £100, with board, residence, and washing.

DENTAL HOSPITAL OF LONDON, Leicester-square.—Assistant Anæsthetists.

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—Assistant House Surgeon. Salary £50 per annum, with furnished apartments, board, and washing.

DORSET COUNTY HOSPITAL, Dorchester.—House Surgeon, unmarried. Salary £100, with board and residence.

EAST SUFFOLK AND IPSWICH HOSPITAL.—Second House Surgeon. Salary £80 per annum, with board, lodging, and washing.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E. Senior Resident Medical Officer. Salary £70, with board and washing.

FISHERTON ASYLUM.—Assistant Medical Officer. Salary £150 per annum, with board, lodging, and washing.

GENERAL INFIRMARY, Leeds.—Resident Casualty Officer. Salary £100 a year, with board, lodging, and washing.

GLANFORD BRIGG UNION.—Medical Officer and Public Vaccinator. Salary £37 per annum, with extras and vaccination fees.

GUEST HOSPITAL, Dudley.—Assistant House Surgeon for six months. Salary £40 per annum, with residence, board, and washing.

HARTLEPOOLS HOSPITAL.—House Surgeon. Salary £100 per annum, with board, washing, and lodging.

HEXHAM RURAL DISTRICT COUNCIL.—Medical Officer of Health. Salary at rate of 200 guineas per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House Physicians for six months, with an honorarium of £25.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—Clinical Pathologist and Bacteriologist, non-resident, honorarium 50 guineas; also Anæsthetist, honorarium 15 guineas; House Surgeon, unmarried, for six months, salary £20, washing allowance £2 10s., with board and residence; and Medical Registrar, honorarium 50 guineas.

HULL ROYAL INFIRMARY.—Junior Assistant House Surgeon. Salary £80, with board and lodging.

KING'S COLLEGE, London.—Professor of General Pathology and Bacteriology.

LAWN HOSPITAL FOR INSANE, Lincoln.—Assistant Medical Officer. Salary £100.

LEICESTER INFIRMARY.—Second Assistant House Surgeon. Salary £80 per annum, with board, apartments, and washing.

LONDON COUNTY ASYLUM, Banstead.—Medical Superintendent. Salary £1000 per annum, with unfurnished house, rates, taxes, and water-supply free.

LONDON LOCK HOSPITAL, 91, Dean-street, W.—House Surgeon to the Male Hospital. Salary £80 per annum, with board, lodging, and washing.

METROPOLITAN ASYLUMS BOARD.—Assistant Medical Officers (unmarried) at the Fever and Small-pox Hospitals. Salary £160 per annum, rising to £200, with board, lodging, attendance and washing. Also Assistant Medical Officer (unmarried) at the Asylum, Caterham, Surrey. Salary £150 per annum, rising to £170, with rations, lodging, attendance, and washing.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—Honorary Surgeon for Ophthalmic Department.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, N.E.—House Physician for six months. Salary at rate of £80 per annum, with board, residence, and laundry. Also House Surgeon for six months. Salary at rate of £80 per annum, with board, residence, and laundry. Also Dental Surgeon. Salary £10 per annum.

NORTH WALES COUNTIES LUNATIC ASYLUM, Denbigh.—Second Assistant Medical Officer. Salary £120 per annum, increasing £10 per annum to a maximum to be fixed by the committee, with board, residence, and washing.

NORTH-WESTERN FEVER HOSPITAL, Lawn-road, Hampstead.—Locum Tenens. Salary at rate of £160 per annum, with board, lodging, and washing.

NORTHAMPTON GENERAL INFIRMARY.—Honorary Physician.

NOTTINGHAM GENERAL DISPENSARY.—Senior Resident Surgeon. Salary £200 per annum, increasing by £15 every year. Also two Assistant Resident Surgeons. Salaries £160 per annum each, increasing by £10 every year, furnished apartments, attendance, light, and fuel. Unmarried.

OLDHAM INFIRMARY.—Senior House Surgeon. Salary £100 per annum, with board, washing, and residence; also Junior, £75 per annum, with board, residence, and washing.

OWENS COLLEGE, Manchester.—Senior and Junior Demonstrator in Physiology. Stipends £150, rising to £200, and £100, rising to £150 respectively.

PARISH GLENELG.—Medical Officer. Salary £120 per annum.

PLYMOUTH BOROUGH ASYLUM.—Assistant Medical Officer, unmarried. Salary £150 per annum, rising to £200 per annum, with furnished apartments and board and washing.

QUEEN'S HOSPITAL, Birmingham.—House Surgeon. Salary at rate of £50 per annum, with board, lodging, and washing.

ROYAL CORNWALL INFIRMARY.—House Surgeon, unmarried. Salary £100, increasing by £10 a year, with board (excluding stimulants) and apartments.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.—House Physician, for six months. Salary at rate of £80 per annum, with furnished apartments, board and washing.

ROYAL SEA-BATHING HOSPITAL, Margate.—Locum Tenens as Resident Surgeon for three weeks, commencing July 1st.

ROYAL UNITED HOSPITAL, Bath.—House Surgeon. Salary £100, with board, lodging, and washing.

SALOP INFIRMARY.—Assistant House Surgeon. Salary at the rate of £40 per annum, with board and washing.

ST. BARTHOLOMEW'S HOSPITAL Rochester.—Assistant House Surgeon. Salary £100 per annum, with board, washing, &c.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, W.—Demonstrator of Anatomy. Salary £70 per annum.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston-road.—Resident Medical Officer, unmarried. Salary £105, with residence and attendance.

ST. GILES, CAMBERWELL INFIRMARY, Havil-street, Camberwell.—Third Assistant Medical Officer for one year only. Salary £50, with apartments, board, and washing.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Senior House Surgeon. Salary £100 per annum, with residence, board and washing.

TEIGNMOUTH HOSPITAL, S. Devon.—House Surgeon. Salary £70 a year, with board, lodging, and washing.

VICTORIA HOSPITAL FOR CHILDREN, Queen's-road, Chelsea, S.W.—House Physician for six months. Honorarium of £25 and board and lodging; also Surgeon and Assistant Surgeon

WEST RIDING ASYLUM, Wadsley, near Sheffield.—Third Assistant Medical Officer. Salary £150, with board, &c., rising to £200. Also Fifth Assistant Medical Officer. Salary £140 per annum, with board, &c., rising to £160.

WORKHOUSE, Brownlow-hill, Liverpool.—Assistant Medical Officer (unmarried). Salary £80 per annum, with rations, and £20 fees.

WORKSOP DISPENSARY AND VICTORIA HOSPITAL.—House Surgeon and Dispenser, unmarried. Salary £150 per annum, rooms, and attendance.

YORK DISPENSARY.—Resident Medical Officer, unmarried. Salary £110 a year, with board, lodging, and attendance.

INDIAN MEDICAL SERVICE.—Examination for twenty-one appointments. Apply to the Military Secretary, India Office, London, S.W.

THE CHIEF INSPECTOR OF FACTORIES, Factory Department, Home Office, S.W., gives notice of Vacancies for Certifying Surgeons under the Factory Acts at Bethesda, in the County of Carnarvon; at Cromer, in the County of Norfolk; at Loughton, in the County of Essex; at Drumquin, in the County of Tyrone; at Kinlough, in the County of Leitrim; and at Stradone, in the County of Cavan.

Births, Marriages, and Deaths.

BIRTHS.

COOK.—On June 22nd, at Mengo, Uganda, Ethel, wife of John Howard Cook, M.S., F.R.C.S., of a son.

GREENE.—On June 20th, at Crossbrook-street, Cheshunt, Herts, the wife of W. A. Greene, M.R.C.S.E., of a son (stillborn).

JAMESON.—On June 22nd, at Killeshin House, Upwell, Cambs., the wife of J. Elliott Jameson, B.A., M.B. T.C.D., of a daughter.

KEMP.—On June 24th, at Worksop, Notts, the wife of G. Lajus Kemp, M.D. Lond., of a son.

KNAGGS.—On June 24th, at Camden-road, London, N.W., the wife of H. V. Knaggs, M.R.C.S., of a daughter.

MANNINGTON.—On June 24th, at Belmont, Muswell-hill-road, Highgate, the wife of Frank Mannington, F.R.C.S. Eng., of a daughter.

MCNAIR SCOTT.—At Auchenreoch, Brechin, N.B., on the 18th inst., the wife of R. F. McNair Scott, B.A. Camb., M.B., Ch.B. Edin., of a son.

REDFERN.—On June 19th, at Croindene, Wellesley-road, Croydon, the wife of John J. Redfern, M.A., M.D., of a son.

WARD.—On June 14th, at Berners-street, Ipswich, the wife of F. Fowler Ward, M.B., B.C., of a son.

MARRIAGES.

APPLETON—SERCOMBE.—On June 18th, at St. Andrew's, Wells-street, by the Rev. T. Anderson, of St. Stephen's, Bournemouth, James Ruderby Appleton, M.R.C.S., L.R.C.P., to Emily, daughter of the late Edwin Sercombe.

EVANS—GRANGER.—On June 20th, at St. Stephen's Church, Battersea, by the Rev. C. Walter Russell, B.D., John William Evans, LL.B., D.Sc., late State Geologist and Chief Inspector of Mines in Mysore, son of the late Evan Evans, M.D., R.N., of the City of London, to Jessie Downie Granger, M.B., Ch.B., daughter of the late Dr. J. R. Granger, of Glasgow.

GALLWEY—GORDON.—On June 22nd, at St. Patrick's Church, Soho-square, by the Rev. Dean Vere, Colonel Sir Thomas Gallwey, K.A.M.C., to Maud Margaret Howard, widow of the late Captain C. W. Duff Gordon, Royal Artillery.

DEATH.

SHIER.—On June 16th, at Claremont-terrace, Exmouth, David Shier, M.D., late Inspector of Estates Hospitals, British Guiana, aged 85.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

"MEDICAL TESTIMONIALS TO QUACKERY."

To the Editors of THE LANCET.

SIRS,—The explanation which Dr. Burrow and myself offer in regard to your comments in THE LANCET of June 22nd, p. 1808, headed "Medical Testimony to Quackery," is as follows. The man in question called on us personally at our own houses introducing himself as a corn-cutter. He produced a book containing some hundreds of testimonials from medical men in regard to corn-cutting; we added our names. We had no suspicion that the man was anything more than what he professed to be, or that the testimonials were to be used as advertisements, either in the local papers or in any other unbecoming manner. No one was more surprised than we were to see our names in the advertisement column of the *Lancaster Observer* of June 7th, palpably recommending a man who treated "varicose veins, fungous tumours, ingrowing nails, &c." The same day we consulted a solicitor who, on the 12th inst., had in his possession a written guarantee from Mr. S. that future publication would cease. They certainly have not reappeared in this district. We were thus the unconscious victims of a quack, but we have done all in our power since to prevent our names being connected in any way with him. On behalf of Dr. Burrow and myself, I am, Sirs, yours faithfully,

W. DODGSON BARROW.

Dalton-square, Lancaster, June 26th, 1901.

To the Editors of THE LANCET.

SIRS,—You will find below the names of two of the four medical men whom you attacked in the last issue of your paper under the above heading and whose names you so mercifully withheld. You say that we must be trusting and unsophisticated and that we are guilty of conduct requiring explanation. Altogether you seem to have bottled up a considerable store of virtuous indignation. You publish this attack in your widely-read journal without having in any way made yourself acquainted with the facts of the case; you trusted entirely to the evil-disposed person whom you refer to as your "sour correspondent." We ask you to publish our reply to that attack, not on account of any rule of medical etiquette, but as a matter of justice and fair-play. The medical men of this district understand exactly the conditions under which these testimonials were given and the good feeling that exists amongst the members of the profession here is not likely to be disturbed by the efforts of your "sour correspondent." We are but poor general practitioners but we yield to no one in the desire to uphold the honour of our profession. We do not think its status is likely to be raised by medical men making themselves ridiculous by slavishly adhering to some supposed rules of medical etiquette which, if they exist, are manifestly absurd and silly. If a man cuts our corns, nails, or hair, and he does it well, or if a man supplies us with good bicycles or motor-cars, we see no objection to testifying to it, even though we do belong to the medical profession. The advertisement in the *Lancaster Observer* was highly objectionable and how it was that our names appeared in it admits of a very simple explanation. We are not going to give you that explanation and we are perfectly indifferent to any opinion that you may now form on the subject.

We are, Sirs, yours truly,

PATRICK F. MANNIX,
Lancaster, June 22nd, 1901. BERTRAM W. HOGARTH.

*** "A sour correspondent" should have read, had it been properly printed, "*as our correspondent.*"—ED. L.

"THE HAGEY TREATMENT FOR INEBRIETY."

To the Editors of THE LANCET.

SIRS,—Could any of your readers give me information as to the utility of the "Hagey treatment for inebriety, &c."? A patient of mine of moderate means is urged by his relatives to try "the cure," the fee for which is 25 guineas, payable beforehand. I should not like to see him fleeced of his money. I am, Sirs, yours faithfully,

June 24th, 1901. M.D.

CATERPILLAR RASH.

To the Editors of THE LANCET.

SIRS,—A few days ago two children were playing with the hairy caterpillar of which I inclose two specimens. They both awoke next day with a rash composed of little vascular papules, accompanied with considerable irritation. While playing with the caterpillars the elder child had worn gloves and in her case the rash was confined to the face and neck, for, as it was a windy day, she kept brushing her long hair back from her eyes, and she complained almost immediately of smarting in the eyelids; the younger child, being ungloved, had his hands covered with the rash, besides a patch on his neck and cheek where he might have rubbed them. They had both being playing with other kinds of caterpillars for several weeks without any ill effects. Though this is the third day, the rash has scarcely begun to subside, and the practitioner who attended them says that the rash has some resemblance to the early stage of small-pox. This caterpillar was swarming on the may-trees during the first week in June, and as it is clear that the poison was conveyed merely by touch and the insects are very tempting to children it seems worth while to call public attention to the matter.

I am, Sirs, yours faithfully,

Northampton, June 26th. G. I. THOMSON.

*** The larvæ inclosed by our correspondent are those of the gold-tail or yellow-tail moth. The popular name of the caterpillar, in the south of England at least, is "palmer worm." The urticating property of these larvæ, or rather of the hairs with which they are adorned, is well known to entomologists, although we cannot call to mind any medical book in which the rash is mentioned. The scientific name of the moth is Liparis Auriflua. The urticating property is probably purely mechanical, for the chrysalis and the cocoon which also contain the hairs give rise to the same effects, as will also the moth when just out of the chrysalis. The processional caterpillar of Southern Europe acts in the same way, as also does the large hairy spider, the mygale, found in South America and the West Indies.—ED. L.

THE ATTENDANCE OF VOLUNTEER MEDICAL OFFICERS AT CAMP.

To the Editors of THE LANCET.

SIRS,—In answer to the query of "A Volunteer Medical Officer" in THE LANCET of June 15th, p. 1758, perhaps you will kindly publish the following information. Before going to camp the commanding officer of a regiment should send to the senior medical officer asking him to detail medical officers for duty in camp. The senior medical officer then allocates the days for duty to the various medical officers under his orders, having regard, as far as possible, to the wishes and requirements of those who are senior in rank in the first place and then to the juniors or more recently appointed men. The senior medical officer of the battalion is practically responsible for the health of the regiment in camp.

I am, Sirs, yours faithfully,

June 17th, 1901. SURGEON-LIEUTENANT-COLONEL.

THE DESCENT OF MAN.

WAR is sometimes said to be brutalising, but the following delightful story, which our contemporary the *Westminster Gazette* gave publicity to in its issue of June 24th, shows a degradation in structure which may well "stagger humanity":—

> "It is stated that a young officer at the front recently wrote home to his father: 'Dear Father,—Kindly send me £50 at once, lost another leg in a stiff engagement, and am in hospital without means.' The answer was: 'My dear Son,—As this is the fourth leg you have lost, according to your letters, you ought to be accustomed to it by this time. Try and wobble along on any others you may have left.'"

K.—We think our correspondent may give the solicitors any information which he would be bound to give on oath if subpœnaed, but it will be well to give this information verbally and not in writing.

Robin.—Our correspondent will get the information which he requires if he will write to the Secretary, Royal College of Surgeons, Edinburgh.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (1st).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

TUESDAY (2nd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

WEDNESDAY (3rd).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.).

THURSDAY (4th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

FRIDAY (5th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (5.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.).

SATURDAY (6th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.), Throat, Golden-square (9.30 A.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

WEDNESDAY (3rd).—OBSTETRICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8 P.M. Specimens will be shown by Dr. Lockyer, Dr. Alcock, Dr. Fairbairn, and others. Paper: Mr. J. P. Maxwell: On Spontaneous Rupture of the Uterus in Placenta Prævia.

FRIDAY (5th).—WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital, Hammersmith-road, W.).—5 P.M. Ordinary Meeting. 5.15 P.M. Annual General Meeting.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8 P.M. Cases. 8.30 P.M. Papers:—Mr. S. Snell: A Case in which Blindness was occasioned by the Internal Administration of Salicylate of Soda.—Mr. J. B. Lawford: Further Notes of a Case of Melanotic Sarcoma of the Conjunctiva.—Major H. Herbert, I.M.S.: Conjunctival Bridge and Pouches: Union of Retrotarsal Folds.—Mr. S. Stephenson: Wound of Eyeball with Prolapse of Iris, Enucleation of Eyeball Twenty Days after Accident followed Fifty-three Days later by Sympathetic Disease of the other Eye. Perfect Recovery.

SATURDAY (6th).—PATHOLOGICAL SOCIETY OF LONDON (Department of Pathology of the University of Oxford, South Parks-road).—3.30 P.M. Laboratory Meeting. Dr. Ritchie: The Relation of Resistance to Tetanus Toxine to Antitoxic Power of Serum.—Dr. Martin: Inhibition of Growth of the Typhoid Bacillus.—Dr. Haldane: Hæmoglobinometer.—Dr. Poynton and Dr. Paine: Arthritis produced by Diplococcus Isolated from Rheumatic Fever.—Dr. P. Stewart: Degenerations following Transverse Lesion of the Cord.—Dr. Waters: Demonstration of Tumours.—Mr. Barnard: Calcified Aneurysm of the Renal Artery.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (1st).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. T. C. FOX: Consultation. (Skin.)

TUESDAY (2nd).—ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. H. Head: On Certain Mental States associated with Visceral Disease in the Sane. (Goulstonian Lecture).

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. G. Rankin: Consultation. (Medical.)

WEDNESDAY (3rd).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. W. H. A. Jacobson: Consultation. (Surgical.)

LONDON HOSPITAL MEDICAL COLLEGE (Anatomical Theatre of the College).—4 P.M. Mr. Jonathan Hutchinson: Lessons to be Learned from Vegetable Pathology.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. Perkins: Cases illustrating Prognosis in Heart Disease.

THURSDAY (4th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Consultation. (Surgical.)

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Dr. Garrod: Infantile Scurvy.

CHARING-CROSS HOSPITAL.—4 P.M. Dr. M. Davidson: Rontgen Ray Demonstration. (Post-Graduate Course.)

FRIDAY (5th).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. D. Grant: Consultation. (Ear.)

EDITORIAL NOTICES.

It is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index and Title-page to Vol. I. of 1901, which is completed with the issue of to-day, will be given in the next number of THE LANCET.

VOLUMES AND CASES.

VOLUMES for the first half of the year 1901 will be ready shortly. Bound in cloth, gilt lettered, price 18*s.*, carriage extra.

Cases for binding the half-year's numbers are now ready. Cloth, gilt lettered, price 2*s.*, by post 2*s.* 2*d.*

To be obtained on application to the Manager, accompanied by remittance.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 27th, 1901.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
June 21	30·06	SSW	...	122	80	56	61	64	Cloudy
,, 22	29·91	E.	0·39	108	77	59	60	62	Cloudy
,, 23	29·85	W.	...	112	70	61	60	62	Cloudy
,, 24	30·12	S.W.	0·01	101	69	51	56	61	Cloudy
,, 25	30·37	S.E.	...	113	73	53	55	61	Hazy
,, 26	30·38	N.E.	...	114	77	55	56	62	Hazy
,, 27	30·29	E.	...	118	74	56	56	63	Fine

During the week marked copies of the following newspapers have been received: *Leeds Mercury, Sanitary Record, Liverpool Daily Post, Yorkshire Post, Shanklin Gazette, Bristol Mercury, South African News, Windsor and Eton Express, Hertfordshire Mercury, Reading Mercury, Ardrossan and Saltcoats Herald, Mining Journal, Western Echo, Buxton Advertiser, Birmingham Daily Post, Sunderland Herald,* &c., &c.

Communications, Letters, &c., have been received from—

A.—Messrs. Allen and Hanburys, Lond.; Messrs. Armour and Co., Lond.; Mons. J. Astier, Asnières; A. W. B. Association for Pure Vaccine Lymph, Lond., Secretary of; Dr. A'cantara, Venezuela; Association for Compulsory Registration of Midwives, Secretary of.

B.—Major W. J. Buchanan, I.M.S., Bengal; Bath Urban Sanitary Authority; Bucklow Rural District, Medical Officer of Health of; Dr. R. L. Bowles, Lond.; C. Birchall, Ltd., Liverpool; British Medical Association, Cheltenham, Hon. Secretary of; Bristol Royal Infirmary, Secretary of; *Birmingham Daily Post*; Messrs. Burroughs, Wellcome, and Co., Lond.; Messrs. J. and H. Bell, Nottingham.

C.—Dr. A. Charpentier, Uxbridge; City of Westminster, Medical Officer of Health of; Mr. Stephen Coleridge; Chester General Infirmary, Secretary of; Clayton Hospital, Wakefield, Secretary of; Dr. O. J. Currie, Pietermaritzburg; Mrs. C.; Carlisle Dispensary, Secretary of; City Advertising Agency, Lond., Messrs. J. and A. Churchill, Lond.; Mrs. Campbell, Barking; Messrs. Crossley and Co., Lond.; Dr. Th mpson Campbell, Bridge of Weir; *City Press*, Editor of; Mr. B. M. Corner; Dr. B. P. Cyriax, Edinburgh; Mr. F. W. Collingwood, Lond.; Complex; Chemische Fabrik von Heyden, Radebeul, Germany; Dr. M. D. Custer, Ashley, U.S.A.

D.—Mr. C. Darke, Lond.; Mr. H. J. Dunn, South Croydon; Dorset County Hospital, Dorchester; Mrs. Davidson, Sydenham; Messrs. A. De St. Dalmas and Co., Leicester; Messrs. Dawson and Sons, Lond.

E.—Messrs. G. P. Englehard and Co., Chicago, U.S.A.

F.—Fourteenth International Congress of Medicine, Madrid, Secretary of; Dr. T. Fischer, Bristol; Mr. W. C. Finch, Salisbury; Fosco Manufacturing Co., Liverpool.

G.—Mr. T. B. Greene, Merthyr; Mr. C. H. Garland, Barnes; D. W. H. Gilbert, Baden Baden; Great Eastern Railway Co., Continental Traffic Manager of; Messrs. Gilbert and Wood, Lond.; Gordons Advertising Agency, Lond.; Glanford Brigg Union, Clerk of.

H.—Miss V. S. Held, Finistère; Messrs. Hirschfeld Bros., Lond.; Hartlepools Hospital, Assistant Secretary of; Messrs. Hatchman and Co., Lond.; Mr. R. Howarth, Wolverhampton; St. Helen's Cable Co., Warrington; Hospital of St. John and St. Elizabeth, Secretary of; Dr Braine Hartnell, Cotswold; Dr. T. R. Hayward, St. Helen's; Mr. A. R. Henchley, Woolwich; Mr. H. R. Hooper, Lond.; St. Henry Convalescent Fund, Secretary of; Mr. E. G. Hawkings, Plymouth; Mr. W. B. Hallowes, Newark.

I.—Institution of Mining Engineers, Secretary of.

J.—Rev. S. E. Jarvis, Lond.; Dr. W. Jamison, Penrhiwceiber; Dr. W. D. Johns, Parkstone; J. S.; Mrs. Jocelyn, Margate; Dr. L. Jones, Brighton.

K.—Mr. C. B. Keetley, Lond.; Mr. C. Kellerman, Lond.

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P.—Dr. A. M. N. Pringle, Salford; Mr. Y. J. Pentland, Edinburgh; Dr. L. A. Parry, Hove; Pater et Medicus; Mr. Chas. Prideaux, Shaftesbury.

Q.—Queen's Hospital, Birmingham, Secretary of.

R. Dr. Nathan Raw, Liverpool; *Revue Internationale de Thérapie Physique*, Rome; Robin; Mr. R. Redpath, Newcastle-on-Tyne. Dr. W. Russell, Edinburgh; Rebman, Ltd., Lond.; Rosslare Sanatorium, Ireland, Hon. Secretary of; Rhondda Urban District, Medical Officer of Health of; Royal Free Hospital, Secretary of; Mr. F. H. Reed, Andover; Messrs. Reynolds and Branson, Leeds; Dr. C. Reinhardt, Ipsden; Royal Medical Benevolent College, Lond.

S.—Miss C. Smith, Lond.; Messrs. J. and S. Samuels, Liverpool; Messrs. Swan Sonnenschein and Co., Lond. St. Mary's Hospital Medical School, Lond., Secretary of; Society of Arts, Secretary of; Messrs. Squire and Sons, Lond.; St. Bartholomew's Hospital, Rochester; Messrs. R. Shaw and Co., Manchester; Mr. R. D. Spillane, South Norwood; Society for Prevention and Cure of Consumption, Durham, Secretary of; Sell's Advertising Offices, Lond.; Messrs. G. Street and Co., Lond.; Mr. D. W. Scott, Guys; Mr. C. G. Stuart Menteath; St. Mary Islington Infirmary, Secretary of; Scholastic, Clerical, &c. Association, Lond.

T.—Mr. W. H. Thomas, Brighton; Tabloid.

U.—Mr. F. W. Underwood, Gloucester; Universal Cookery and Food Association, Director of.

V.—Mr. W. Vero, Dulwich; Mr. G. Vickers, Lond.

W.—Mr. G. Wherry, Cambridge; Worksop Dispensary, Secretary of; Dr. A. Wilson, Edinburgh; Dr. A. Wauchope, Glasgow; Messrs. Whitbread and Co., Lond.; Mr. F. F. Wellington, Lond.; W. C. Norwich; Wadsley Asylum, Sheffield, Secretary of.

Letters, each with enclosure, are also acknowledged from—

A.—Mr. C. L. Ashby, Thames Ditton; A. W. L. J.; A. H.; A. D.; A. R. G.; A. D.; A., Ilford.

B.—Mr. F. Brentnall, Abergele; Messrs. Bates Bros. and Stevenson, Lond.; Messrs. J. Beal and Son, Brighton; Mrs. B.; Borough of Salford, Treasurer of.

C.—Dr. A. Collie, Foecy, France; Messrs. Cassell and Co., Lond.; Messrs. Condy and Mitchell, Lond.; C. R. G.

D.—Discount Motor Car Co., Lond.; Delta, Newcastle-on-Tyne; D. F.; Mr. L. B. Dhargalker, Bombay; Doctor, Lond.; Dr. D.; Delta, Bristol.

E.—Mr. Bliss, Neath; E. H. B.

F.—Dr. A Forsyth, Okehampton; Dr. G B. Flux, Lond.; F. B. N.; Mr. E. J. Foulston, Liverpool.

G.—Mrs. R. Godfrey, Riversley; Greenock Infirmary, Secretary of; G. A. B.; Messrs. Giles, Schacht, and Co., Lond.; Surgeon C. B Gittings, H.M.S., *Monarch*, Cape Town; G. N. P., Pontypool.

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